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COURSE OF LECTURES
ON
DISEASES OF THE SKIN;
THEIR
HISTORY, PATHOLOGY, AND TREATMENT.

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LECTURE XXIX.

LEPRA VULGARIS.

THE general characters of lepra which I described to you in my last lecture are those of the commoner form of the disease, lepra vulgaris. The eruption usually commences about the knees or elbows; the patches are circular and depressed in the centre, they average in size the diameter of a shilling, and they are often limited to the limbs, not extending at all to the trunk of the body. While, in the general distribution of the patches, the circular form is preserved, there are certain situations in which they are apt to become confluent; these are especially the knees, the elbows, the scalp, and the pubic region, and then we have patches produced which are of considerable size and irregular in their shape. On the scalp the eruption is generally limited by the boundary of the hair.

Lepra vulgaris is rarely attended with symptoms of constitutional disorder, and the local inconvenience scarcely amounts to more than a feeling of rigidity of the skin and some degree of pruritus. When the disease is extensive, as when it extends around the knee, it produces a stiffness in the action of the joint, and upon the hair-bearing parts of the body the pruritus is sometimes troublesome and severe. This latter is greatly felt when the disease affects the scalp, and still more when the pubes is the part attacked. From the irritation caused by scratching secondary disorder is often experienced; abrasions of the skin are formed, and an ichorous and purulent secretion is poured forth, which concretes into irregular scabs.

When lepra affects the hands and fingers the process of formation of the nails becomes disturbed; they are thickened and rough in appearance, and a yellowish curdy matter is often deposited beneath them.

LEPRA ALPHOIDES.

Lepra alphoides is an imperfectly-developed lepra; the patches are of small size, but retain the general characters of the typical disease, and they are brilliantly white in their appearance. The eruption of lepra alphoides is tardy in its progress; the patches rarely attain a size greater than a few lines in diameter; they are usually confined to the limbs, often to the neighbourhood of the joints; and the disease occurs in persons of a weakly habit of body, frequently in women and children. The patches of this variety of lepra are sometimes found interspersed among those of lepra vulgaris. The disease is more difficult of cure than the preceding.

LEPRA NIGRICANS.

Black lepra is a lepra vulgaris occurring in persons of bad and cachectic constitution. In general characters the patches resemble those of lepra vulgaris, but they are somewhat smaller in size, and not depressed in the centre. The particular signs of this variety are a purplish or livid hue of the inflamed patches seen through the scale, and thinness of the scale itself. The scales, when raised with the nail, are easily detached, and leave at their fall a tender and often an excoriated surface, which pours out an ichorous secretion.

Willan remarks, with regard to lepra nigricans, that it affects "soldiers, sailors, scullermen, stage-coachmen, butchers, brewers, labourers, and others whose occupations are attended with much fatigue, and expose them to cold and damp, and to a precarious or improper mode of diet. Women habituated to poor living and constant hard labour are also liable to this disease."

LEPRA SYPHILITICA.

Syphilitic lepra bears a close resemblance to the preceding variety. The patches are

dark and livid; they are somewhat smaller than those of lepra vulgaris; the scales covering them are thin, brittle, and only slightly adherent; the elevations left on the removal of the scales are smooth and shining, and on their disappearance they are succeeded by a copper-coloured stain of the skin, which lasts for a considerable time. The whole skin is of a yellowish or tawny hue, and is said to give forth a peculiarly disagreeable odour.

Diagnosis.—The pathognomonic characters of lepra are its circular patches, with elevated border and depressed centre. When a number of patches have become confluent their original circular form may still be discovered on the margin of the patch. Psoriasis differs from lepra in the irregular shape of the patches, the absence of the raised border and depressed centre, and in the occasional presence of deep chaps and fissures.

One variety of lepra, the lepra alphoides, approaches very nearly in its characters to a variety of psoriasis, the psoriasis guttata, and the distinction between them is by no means easily made. On careful examination, however, it will be seen that the patches of lepra alphoides are more regular than those of psoriasis guttata; they are somewhat larger; they have the depressed centre, and their scales are thicker and more perfectly formed.

Lichen circumscriptus bears a considerable resemblance to the patches of lepra vulgaris denuded of their scales; but there is this difference between them, namely, that the surface of the patch of lepra, when the scale has been rubbed off, is smooth and uniform, while that of lichen circumscriptus is more or less distinctly papular.

Causes.—No question is involved in greater difficulty than the consideration of the causes of lepra. It is a constitutional disorder, is frequently hereditary, but often appears on an individual without any apparent disturbance of health, and without any assignable cause. It occurs at all ages, and in all states of the skin: it is imagined by some dermatologists that it is met with more frequently in persons who have a dry and harsh skin than in others, but this I do not find to be the case. Among the occasional exciting causes of the disease are mental anxiety and emotion, intemperance, exposure to cold and wet, improper and deficient food, a diet of game and salted meats.

Prognosis.—Lepra is always an obstinate and troublesome disease, but one which is not dangerous to existence. In children and young persons it sometimes gets well speedily; but in the old it lasts for the rest of life. I have sometimes seen it exercise a counter-irritant effect on the system, and take the place of a more severe disorder, or suddenly disappear on the outbreak of a more serious malady.

Treatment.—As the eruption of lepra so frequently depends on disturbance of the general health of the patient, this must first be attended to. The diet must be regulated, a cooling and unstimulating regimen must be adopted, and our object assisted by the use of laxatives, tonics, and alteratives, as the case may seem to require. When the patient is robust and plethoric, considerable benefit may be derived from blood-letting.

The specific remedies that have been recommended for lepra are numerous, and comprise several powerful and dangerous medicines. Some have been vaunted as certain cures, but, alas, without truth. We have no specific on which we may rely with any rational hope of success (I speak from considerable experience in the treatment of this disease), and we are obliged to take each remedy in its turn until some benefit appears to result from its use. The chances of cure are diminished, also, by the freedom of pursuing the ordinary avocations of life in the accustomed channel which is permitted by lepra. On the other hand, in our hospitals, where the habits and diet are completely changed, where a course of medicine is being exhibited and perfect rest enjoined, the disease gets well in a variable period without any specific. Upon the same principle a change of scene and occupation, particularly when the mind is at rest, will sometimes prove more successful in effecting a cure than the best-directed remedies.

We must now, however, inquire, what the remedies are which have been recommended for this disease; they are, arsenic, either in the form of pill or liquor arsenicalis; combined with iodine in the form of iodide of arsenic; combined with mercury, as the arseniate of mercury; with mercury and iodine in the triple compound made by Mr. Donovan, of Dublin, the liquor hydriodatis hydrargyri et arsenici; or the liquor arsenicalis in a vehicle of infusion of dulcamara or decoction of sarsaparilla: iodine, as the iodide of potassium in decoction of sarsaparilla, or combined with arsenic or mercury, in the two remedies recommended by Dr. Thomson, iodide of arsenic and biniodide of mercury: mercury in the preceding forms, or in that of the bichloride in decoction of sarsaparilla: liquor potassæ; tincture of cantharides; tar; decoctions of dulcamara, guaiacum, mezereon and elm-bark; infusion of nettles; milk of sulphur; sulphuric acid; a course of purgatives; &c.

All the preparations containing arsenic require that the patient should be carefully watched during their use, and the treatment stopped or intermitted if any unpleasant symptoms arise. For example, if there be nausea, pain in the epigastrium, pinchings in the bowels, diarrhœa, hæmorrhage from

the bowels, swimmings and disagreeable symptoms about the head, twitching of the muscles, &c., an intermission of one or two days will generally be a sufficient rest, and you may then recommence, but with smaller doses than those with which you left off. The effect of arsenic on the eruption is to increase the redness and heat of the patches in the first instance, but afterwards the redness subsides, and they look dull and brownish. Arsenic must be continued perseveringly for several months before a cure can be expected.

Dr. Thomson makes the following remarks on the iodide of arsenic, which he recommends to be used in doses of one-tenth of a grain, and in no case greater than one-third of a grain. He says, "its obvious effects are quickness and hardness of the pulse, with slight puffiness of the lower eyelids; but generally, before these symptoms of its influence display themselves, the disease has begun to yield." "The symptoms which indicate a necessity for reducing the dose are, heat of mouth and fauces and anxiety of the præcordia, with pain at the epigastrium, or griping. If, besides these, there is tension, with an uneasy sensation of stiffness around the eyes and erythema of the face, thirst, or white tongue, with the edges and tip of a florid red hue, and a quick pulse, the use of the medicine should be suspended for some days. If nausea, cough, vertigo, or salivation supervene, it should be left off altogether. The employment of any arsenical medicine is inadmissible if it cause an uneasy sensation of the chest from the first." It may be important to recollect that iodide of arsenic is incompatible with cinchona.

Respecting the biniodide of mercury Dr. Thomson observes, "I have found no combination of mercury equal to that with iodine in the treatment of lepra. The biniodide, in doses of a sixth to a fourth of a grain, seems to exert almost a specific influence upon the morbid state of skin; and when given at the same time as the iodide of arsenic, and aided by blood-letting, it has rarely failed in rapidly and permanently curing the most inveterate cases of the disease. As the acrimony of the preparation has sometimes greatly disturbed the alimentary canal, I have usually combined it either with opium or conium, and I have always carefully avoided pushing it to ptyalism. Candour obliges me to admit that as I have usually prescribed the biniodide in conjunction with the iodide of arsenic, it is difficult to say what share the mercurial had in the cures; and in cases where idiosyncracy prevented me from employing arsenicals in any form, I have seen the beneficial properties of the biniodide very obviously displayed."

The liquor hydriodatis hydrargyri et arsenici is given in doses of twenty drops to half a drachm three times a-day; the dose being augmented from time to time. Like other preparations containing arsenic or mercury, this remedy requires to be watched and intermitted when necessary. It must be continued for several months to effect a cure.

Tincture of cantharides, like the preceding, requires close watching; the best formula for its use is one containing an equal part of compound tincture of camphor, and combined with tincture of cinchona.

In the *local treatment* of lepra it is necessary to subdue any excitement that may be present in the part, and then have recourse to one or other of the numerous local applications that have been recommended for this disease. When the case is chronic the remedies may be used at once. In lepra, baths are sometimes of service, particularly the vapour bath, simple or medicated, alkaline or sulphuretted baths, or the sea-water bath. Other remedies for the complaint are ointments of zinc, calomel, white precipitate, nitrate of mercury, sulphate and deutoxide of mercury, ioduret of sulphur, ioduret of ammonia, anthrakokali, fuligokali, tar, creosote, and naphthaline. Blisters have been favourably spoken of by some authors, and the nitrate of silver by others; these remedies, however, have the objection of being too limited in their application.

The most promising local remedy that I am acquainted with is one which was lately proposed by Dr. Gull, of Guy's Hospital, and put in practice by Dr. Babington. This remedy is the impure pyroligneous spirit diluted in water, and applied to the surface of the body in the form of a vapour bath. In two cases treated in this manner, which I had the opportunity of seeing through the kindness of Dr. Babington, the effects of the remedy were both remarkable and satisfactory.

PSORIASIS.

Psoriasis is a cutaneous affection closely allied to lepra, of which, indeed, it is merely a variety. It is characterised by the development, on one or more parts of the skin, of raised and congested patches, of irregular form, and covered by thin and irregular scales of altered and desiccated epidermis. The surface of the patches is generally uniform, and is frequently intersected with chaps and fissures of considerable extent and depth. The chaps correspond in direction with the natural folds of the skin, and are unaccompanied by any morbid secretion.

The varieties of psoriasis are divisible into the general and local, the former being five and the latter six in number; they are

General Varieties.

Psoriasis guttata,
„ diffusa,
„ infantilis,
„ inveterata,
„ gyrata.

Local Varieties.

Psoriasis palpebrarum,
" labialis,
" præputialis,
" scrotalis,
" palmaris,
" unguium.

PSORIASIS GUTTATA.

In general aspect, psoriasis guttata resembles lepra alphoides, but on closer observation several points of difference may be detected between them. The eruption of psoriasis guttata consists of small scaly elevations, varying from one-sixth to one-third of an inch in diameter, disseminated irregularly over the surface of the body, and giving the idea of drops of water sprinkled on the skin. The spots differ from lepra in being more convex in the centre than at the circumference; but some of the patches lose this character as they increase in size, and become depressed in the centre, even to forming rings. The spots are irregular in outline, and sometimes so confluent as to form patches of considerable size; this is especially the case in the neighbourhood of joints. The scales are thin and closely adherent, and very unlike the laminated scale of lepra.

Psoriasis guttata is developed most abundantly on the outer sides of the limbs, the dorsum of the trunk, and on the scalp.

PSORIASIS DIFFUSA.

The term diffusa, as applied to this variety, is intended to express a state which is directly opposite to the preceding. Instead of occurring in spots of small size, the patches are large and very irregular, and occupy a surface of considerable extent, sometimes a large share of a limb or the complete circumference of a joint. Psoriasis, in the diffused form, is often present in the neighbourhood of the joints, whilst in the guttated form it is sprinkled over the rest of the surface of the body. The diseased surface in this variety is always more or less intersected with long and deep chaps and fissures from which no secretion is poured forth.

The congestion, cracking, and desquamation of the backs of the hands and wrists of bakers, which is termed the *baker's itch*, is a psoriasis diffusa; and a similar affection of the wrists and forearms of washerwomen, the *washerwoman's itch*, is the same disease.

PSORIASIS INFANTILIS.

Infants are sometimes the subject of psoriasis to a very severe extent; the disease in them generally assumes the acute form and the diffused character, and spreads more or less extensively over the surface of the body. From the susceptibility of the skin of the infant, the chaps pour out a morbid secretion, the mucous membranes are more or less disordered, and the disease is frequently complicated by pustular eruptions of the inflammatory kind.

PSORIASIS GYRATA.

In this variety the eruption is remarkable for the peculiarity of form and arrangement of the patches. They assume the appearance of a narrow band or riband, variously curved and contorted in its course. This form of eruption is rare, and occurs chiefly on the trunk of the body.

PSORIASIS INVETERATA.

Psoriasis inveterata is an aggravated state of psoriasis diffusa; instead of occupying a moderate extent of surface, as does the latter, psoriasis inveterata spreads over an entire limb, enclosing it, as it were, in a thick, rough, scaly case, which interferes with the movements of the parts and cracks whenever that movement is carried beyond a certain point. The irritation produced by this disease causes thickening and infiltration of the tegumentary tissues; suppurating excoriations are sometimes produced, and the skin is more or less completely disorganised. Psoriasis inveterata sometimes occupies the scalp, and in that situation is especially annoying.

Psoriasis inveterata is an unmanageable and obstinate disease, and sometimes lasts the entire life of the sufferer.

LOCAL FORMS OF PSORIASIS.

The local forms of this disease require no special description, wherever they exist, whether on the eyelids, the lips, the prepuce, the scrotum, or the pudendum, they assume the general characters which I have heretofore described. They produce thickening and induration of the skin, they are apt to become chapped and fissured, the integument subsequently contracts, and assumes a puckered aspect around the part affected, and more or less irritation is produced by the extension of the disease to the neighbouring mucous membrane. This is especially the case when the eyelids and pudendum are affected, and when the latter is the seat of the disease there is excessive and painful pruritus.

PSORIASIS PALMARIS.

Psoriasis palmaris deserves separate mention from its frequency of occurrence and from its exceeding obstinacy. In this disease there is probably no elevation of the dermis, but the latter is red and congested, the epidermis is raised in flakes of various size, deep chaps and fissures are formed from time to time, and the disease one while improves and another becomes aggravated, sometimes confining itself to a single spot, as, for example, the ball of the thumb, and at other times extending from the palm to the flexures of the fingers or wrists, or from these to the palm. This disease causes great stiffness of the hands and fingers, and

the effort to move them increases the chaps, and often produces bleeding.

I know of no disease more difficult of cure than psoriasis palmaris; it disappears at times to recur after the lapse of short periods, or returns at the same season for several successive years.

Diagnosis.—The only disorder with which psoriasis is likely to be confounded is lepra. I have stated to you that the two diseases approach in similarity almost to identity, and as far as treatment is concerned distinction is unnecessary. The general characters of distinction between lepra and psoriasis are, the well-defined circular form, with depressed centre, and laminated scales of the former, and the irregular shape, absence of depressed centre, and imperfect scales of the latter. The differences between lepra alphoides and psoriasis guttata I have already adverted to.

The *causes* of psoriasis are the same with those that give origin to lepra. In some instances the disease appears to obey a local source of excitement, but it often occurs without any apparent cause.

Psoriasis is one of the most obstinate of cutaneous diseases, but is not dangerous to existence.

Treatment.—The remedies employed for lepra are equally available for psoriasis, but from the exceeding obstinacy of the latter disease several powerful applications have been recommended for its treatment; for example, Rayer suggests in rebellious cases frictions with the tartar emetic ointment. Dr. Elliotson cured a case of psoriasis inveterata by means of bleeding and colchicum, and Dr. Morison by frictions with oatmeal on a damp sponge, and the application of rags dipped in neats-foot oil.

PITYRIASIS.

Pityriasis is a chronic inflammation of the skin, characterised by the development of red patches without any elevation of the surface. These patches are variable in their tint of redness, irregular in their form, and covered by thin micaceous scales of desiccated epidermis. The patches are accompanied by a moderate degree of heat and pruritus, and continue for a considerable length of time.

The varieties of pityriasis are, one general and eight local; they are,

Pityriasis simplex.

Local Varieties.

Pityriasis capitis,
" palpebrarum.
" labiorum,
" palmaris et plantaris,
" præputialis,
" pudendalis,
" oris.

To these Willan added pityriasis versicolor and pityriasis nigra, diseases which belong more properly to those alterations which consist in a modification of the pigment of skin.

PITYRIASIS SIMPLEX.

Pityriasis simplex, called pityriasis rubra by Willan, presents the general characters of the disease which I have just enumerated. It is most commonly met with on the face, particularly in children and females, and in persons of a light and delicate complexion. The patches look rough and unsightly, and continue for several months, often lasting during the entire winter to disappear in the summer. On their decline they leave behind them yellowish stains, which are slow in disappearing.

PITYRIASIS CAPITIS.

Pityriasis capitis or dandriff is an affection which is chiefly met with in children and old persons. It commences about the temples and around the front of the scalp, and thence extends over the entire surface. The disease is attended with heat, redness, and pruritus, and sometimes so much irritation is excited as occasions the production of an ichorous discharge. In this disease desiccated epidermic scales are produced in great quantities. The disease sometimes extends to the eyebrows, the whiskers, and beard.

The other local varieties of pityriasis require no separate description, so far as the general characters of the disease are concerned; their names, in expressing their seat, point out their chief peculiarities. In reference to the last, namely, pityriasis oris, Rayer, upon whose authority it rests, remarks, "I have observed the inside of the mouth affected with chronic inflammation and habitual desquamation of the epithelium, especially about the base of the tongue, without any antecedent or concomitant affection of the pharynx, stomach, or lungs—pityriasis oris. This state continued during five or six years, with but brief intermissions, the principal functions being all the while performed with great regularity. At the time a desquamation of this kind was going on our patient complained of heat, and often of painful sensations, difficult to define, in the interior of the mouth. In a woman, who was similarly situated, almost the whole of the mucous membrane of the mouth was habitually of a greyish-white colour, and when the epithelium was thrown off from the tongue its surface presented several patches of a bright-red colour, which continued until the investing membrane was either formed anew or again rendered thick and opake."

Diagnosis.—The especial characters of pityriasis are the copious production of minute epidermic scales, the erythematous redness without swelling of the skin, and the troublesome pruritus. These characters, and especially the absence of any elevation of the patches, distinguish them from the allied affection, psoriasis, with which it is

not unfrequently confounded. There is a state of the scalp of infants which is sometimes improperly called dandriff, but which has no relation to this disease,—the state to which I refer is the collection of the sebaceous substance into numerous dark-coloured scales. These are occasionally so abundant as to cover the entire scalp.

Causes.—Irritation to a very slight or moderate degree will give rise to this affection. It proceeds not unfrequently from disturbance of the mucous membrane, but more frequently from exposure of the skin to the influence of the air.

Prognosis.— Pityriasis is an obstinate affection, and liable to frequent recurrence. Rayer records a fatal case of general pityriasis.

Treatment.—If the patient be plethoric bleeding will be found of great service in this disease. The bleeding should be followed by aperients and by a light and cooling regimen. In treating the disorder locally, the vapour-bath with the impure pyroligneous acid, as in psoriasis, is calculated to be an useful remedy, or in place of this the warm or alkaline baths.

Pityriasis is sometimes accompanied with gastro-intestinal irritation, as evinced by diarrhœa. The diarrhœa in this case should be treated on general principles. When there is debility tonics are called for, and sometimes alkalies and the iodide of potassium are found of great service.

The severe pruritus which often accompanies this disease may be relieved by the hydrocyanic lotion, acetate of lead lotion, a lotion containing alum or the biborate of soda. Bichloride of mercury, in weak solution, forms an useful application to the patches of pityriasis, particularly when they occur upon the face or hands. Zinc ointment is a good application for some of the local forms, and for pityriasis palmaris et plantaris the white precipitate ointment.

INFLAMMATION OF THE DERMIS INDUCED BY PARASITIC ANIMALCULES INHABITING THE EPIDERMIS.

SCABIES.

The present division contains only one disease, namely, *scabies*, and this differs from all the diseases which we have previously considered in depending upon an external and demonstrable cause in place of one which is internal and occult.

Scabies, or itch, is an affection of the skin, characterised by scaliness of the epidermis, by vesicles, and in some cases by pustules; to which may be added accidental abrasions and scratches produced by the nails. The disease is accompanied by excessive itching, and this symptom is augmented by heat and by the use of stimulating food and drinks.

The appearances which I have just described are due to the presence of a minute animalcule, the acarus scabiei, which burrows beneath the epidermis, and irritates by its presence the contiguous papillary layer of the dermis. The burrowing of this little creature produces roughness and scaliness of the epidermis, and the irritation which it excites in the dermis causes the development of vesicles and pustules. The vesicles bear no proportion, in point of numbers to the number of the acari, but have reference to the cutaneous susceptibility of the individual. They differ also in their form in various parts of the skin, being conical and pointed between the fingers, and hemispherical on the wrists and other parts of the body. Their contents also differ in some slight degree; in the vesicles of conical form the contained fluid is small in quantity, viscous, and transparent, while in the hemispherical vesicles the fluid is greater in quantity and more serous, or sometimes sero-purulent. These differences in the appearance and predominance of the vesicles have given rise to the several synonyms by which the disease is known, namely, scabies papuliformis, and scabies lymphatica. In some instances true pustules accompany the movements of the acarus, and this constitutes the scabies purulenta.

If one of the early vesicles of scabies be examined with attention, a minute spot or streak may be observed upon some one point of its surface. This is the aperture originally made by the insect on its first entrance beneath the epidermis, and from this spot or streak a whitish line may be traced, either in a straight or a curved direction, into the neighbouring epidermis. The whitish line is the cuniculus or burrow of the acarus; it necessarily varies in length, being sometimes five or six lines long, and at its extremity, under a slight elevation, the little inhabitant lies concealed. In this situation it may be distinguished as a small dark point, and if the convexity of the elevation be raised by a fine needle the little creature will be brought into view.

The aperture and streak are not met with in all the vesicles, for a single animal is capable, by its irritation, of producing a number of vesicles, and it is only at the spot where the creature entered the skin that this appearance can be detected. The aperture does not communicate with the interior of the vesicle, for it is the too close approximation of the animal to the dermis that causes its formation, and in this particular the vesicle may be regarded as a provision of nature for defending the dermis against the closer approach of the little animal. The acarus scabiei is never situated within the vesicle or pustule, and there is no communication between these and the cuniculus.

The more common seat of scabies is the thin skin between the fingers, the bends of the wrists and elbows, and of the joints of the lower extremity. Next in frequency it

is met with on the abdomen, but rarely on the face. A single instance is recorded in which the disease occupied the latter situation. The activity and extent of scabies are much modified by the state of health of the person in whom it occurs; thus, in healthy and strong children, it spreads with remarkable rapidity, while in sickly and cachectic individuals it is equally slow in its progress, or probably does not extend beyond the spot primarily affected.

The pruritus occasioned by this disease also varies considerably in different temperaments; in some persons it produces very little inconvenience, while in others it is unbearably irritating. Scratching, instead of relieving, only increases the irritation, and the skin is more or less torn by the nails. When the vesicles are torn and broken small brownish or black scabs form upon their summit, and give rise to an appearance which resembles prurigo.

Diagnosis.—The pathognomonic signs of scabies are, a peculiar scaliness and undermined state of the epidermis, not met with in other cutaneous affections; its conical vesicles with acuminated and transparent points; and thirdly and principally, the presence of the acarus scabiei. These signs, properly understood, will distinguish scabies from those diseases with which it is liable to be confounded, namely, eczema, prurigo, lichen, impetigo, and ecthyma.

Cause.—A parasitic animalcule, which is conveyed from the affected to sound individuals, either in the adult state, or, possibly, sometimes in the form of ova or embryo. It is quite certain that one of these animalcules placed on the skin of a sound person will give rise to the disease. Lately it has been suggested in France that these little creatures leave their cuniculi at night, and upon this supposition it is attempted to prove the greater communicability of the disease by sleeping with an affected person or in an infected bed.

For some curious and interesting experiments with the acarus scabiei, and for the history and description of the animal, I must, owing to the brief limits of this course, refer you to my work on the diseases of the skin.

Prognosis.—Scabies is a mild disease, and rarely produces any constitutional inconvenience.

Treatment.—The treatment of scabies is purely local; in some few instances, it is true, that benefit may be derived from bloodletting when the patient is plethoric, but in the generality of cases local remedies only are required. These latter should have for their object the destruction of the life of the acarus, a matter by no means difficult of execution.

The best remedy for scabies is, undoubtedly, sulphur, and its best form for the adult, the compound sulphur ointment. The mode of using it is to rub thoroughly into the skin of the affected parts four ounces of the ointment night and morning for two days. At the conclusion of this period the whole of the animalcules will be killed, and a soap-bath on the third day will complete the treatment. This is the most expeditious way of getting rid of the disease, but it must be done thoroughly,—if slighted, some of the animals may escape, and then the patient is no further advanced than before the treatment. By way of precaution I am in the habit of recommending the white precipitate ointment, with musk and lavender, to be used for a week or ten days after the compound sulphur. Previously to the use of the compound sulphur ointment it is desirable to wash the skin thoroughly with a solution of subcarbonate of soda.

An objection to the compound sulphur ointment is its liability to produce irritation and eruptions of the skin; hence, for children and females, you may find it desirable to substitute the simple for the compound sulphur ointment, or to use a still milder remedy, sulphuretted hydrogen in the form of baths.

The remedies recommended for scabies from time to time are very numerous, and all possess more or less virtue in exterminating the cause. Among them I may mention chloride of lime, sweet oil, tar, mercurial ointment, tobacco, and various odorant substances, such as camphor, musk, sweet scented rush, onions, &c.

In treating this disease you must not omit to destroy the garments worn by the patient, or disinfect them by means of sulphurous acid gas.

I shall conclude this lecture with some valuable observations on the destruction of the acarus by M. Albin Gras:—

"I was enabled to obtain living acari from a patient who had taken two or three sulphur-baths, containing four ounces of sulphuret of potash to the bath. On the contrary, I have frequently found them all dead after a single friction with the sulphuro-alkaline ointment."

"Immersed in gum-water the acarus was yet alive after three hours; in saline water it moved feebly at the end of three hours; in Goulard solution it lived after an hour; in olive oil, almond oil, and castor oil it survived more than two hours. In croton oil it was living after the lapse of an hour, but dead at the end of four; in lime-water it was dead in three-quarters of an hour; in vinegar in twenty minutes; in alcohol also in twenty minutes; but in naphthaline still more quickly; in a solution of sulphuret of potash it was dead in twelve minutes; in spirit of turpentine in nine minutes; in a concentrated solution of hydriodate of potash the acarus ceased to exist in from four to six minutes; in a solution of arsenious acid it was dead in four minutes; in sulphuric acid,

diluted with three parts water, it died in three minutes; in pure creosote and in concentrated acids and alkalies, its death was immediate. Placed over night on powdered sulphur the animalcule was found dead the next day, and it required to be exposed to the vapour of burning sulphur for sixteen minutes before it died."

EFFECT OF THE CLIMATE OF UPPER CANADA ON THE LUNGS.

To the Editor of THE LANCET.

SIR,—Some time ago a patient of mine, a gentleman of delicate constitution, several of whose relatives had died of phthisis pulmonalis, showed symptoms indicative of the approach of that insidious disease. I stated my fears to his wife, at the same time mentioning the high opinion I entertained of the climate of Upper Canada for such cases, founded on information I had received from my brother, Mr. Henry Orton, a surgeon practising at Guelph in that province; and it was agreed that I should consult a physician, who had occasionally attended the patient, on this point. I did so, and mentioned the accounts I had repeatedly received of the remarkable salubrity of Upper Canada, and its adaptation especially to patients of this description; but the doctor evidently was dubious. He reached down Sir James Clark's work, speaking of it as one of the highest authority on this subject, and said, "I do not see that Canada is even mentioned;" and concluded the conversation by saying "I really cannot countenance the advice you seem disposed to give; the fact is, we (meaning the medical profession) know nothing of Canada." I may add that this patient went through a quiet course of phthisis, and died a few months ago.

Now, although my information on the subject is but imperfect, being derived almost entirely, as I have said before, from incidental communications received from time to time from my brother, without any reference to publication, I think it sufficiently important, and sufficiently to be relied upon, to be made public; and shall feel much obliged by your giving this paper a place in your celebrated Journal, that the medical profession may not be altogether uninformed as to the claims which, as it appears to me, Canada has on our notice, as a locality highly favourable for the prevention of a class of diseases at present so lamentably prevalent, and as lamentably fatal.

The following is extracted from a letter dated December, 1836, being the first communication on the subject that I recollect:—

"I had occasion a short time since to call in old Mr. Allen to a case five or six miles off in the bush, and we had a great deal of, to me, very interesting chat on the road. Mr. Allen had, he told me, when he came out, letters of recommendation to the governor from Dr. James Johnson, editor of the "Medico-Chirurgical Review," who, he said, had written on the excellence of this climate in all scrofulous and phthisical affections,—reckoning it far before the south of Europe, &c. I quite believe he could not well go too far in this particular. It is a veritable fact that a scrofulous case is scarcely ever seen in Upper Canada in any shape. Mr. Allen instanced several families hereabout that had emigrated from his own county—Suffolk, who, in the old country, had suffered awfully from consumptive bereavements, and several of them in alarming conditions themselves when they came out, who had never shown a symptom of the sort since they came to Canada; and other families who had suffered from scrofulous affections in various forms, that never had given an indication of it here. I myself have never seen a scrofulous or consumptive case yet."

This Mr. Allen, I may mention, was the principal surgeon at Guelph when my brother arrived—having resided there almost from the first settlement of the place—a gentleman in extensive practice, and very much esteemed, both as a sensible well-informed man, and a good practitioner.

In a letter dated December, 1839, I find the following:—

"I have written to ——— (a relative of ours who had had hæmoptysis, &c.), but do not think from the accounts I have heard of him, that there is much chance of his coming out here. I have, however, done what I consider my duty in the matter, and so must leave it. I am convinced I have not said too much on the dangerous position of one who has been the subject of an attack of hæmoptysis, or have too highly recommended this neighbourhood for such constitutions. I feel confident in my own mind that there is not a more congenial climate, for such, in the whole world. I have been lately looking over some old Methodist Magazines, and it is astounding, when reading the orbituary department, to see the number of valuable and most promising lives that are continually cut off by consumption; and I frequently think that nearly the whole of them might have been saved by a timely emigration to Upper Canada."

I shall only add here that I have continued to receive precisely similar reports and statements from time to time up to the present.

About eighteen months ago the late highly-respected Dr. Davidson, of Nottingham, showed me a letter he had then recently received from my brother, in which the same testimony was given; and the doctor, having at that time a patient at Lenton, who had for some years suffered sadly from asthma, immediately recommended him to try a resi-

dence in Canada; which recommendation the Misses Wright, of Lenton Firs, enabled him to carry into effect. I have heard from my brother that this man had been residing at Guelph, and working at out-door work, chiefly gardening, and that he enjoyed good health, with an entire exemption from his old companion, the asthma, except that in one instance he had suffered a short attack, brought on by allowing his wet clothes to dry upon him, after working out in the rain one day.

In the spring of last year my sister, Mrs. Whitt, of Nottingham, who had been subject to a bad cough at times for some years, suffered a severe attack of pneumonia, from which she with great difficulty recovered; indeed, the recovery was very incomplete; for, after the inflammatory symptoms had been subdued, and the immediate danger averted, there continued to remain great debility and emaciation, a very troublesome cough, considerable expectoration, night-sweats, &c. In this stage I consulted Dr. Davidson, who, after a careful examination with the stethoscope, &c., considered her in an alarming condition, and gave altogether an unfavourable prognosis, but concurred with me in recommending her to try a removal to Canada. The result has been most satisfactory. It is not long since I received a letter from Mr. Whitt, who was not able to join his wife until this summer, saying that he found her quite recovered, much stouter; indeed, in good health.

Whether, and to what extent, other localities possess the advantages which seem to appertain to the vicinity of Guelph, remains to be seen; and I shall be glad if this communication be the means of eliciting reports from medical gentlemen practising in other parts of Canada. Mr. H. Orton occasionally uses the word Canada, or Upper Canada, when speaking of the benefits to be derived from its bracing atmosphere, as though the whole province generally was intended, and as though it was a matter of no consequence what particular locality might be fixed upon; but I confess I greatly doubt the correctness of that inference. The great bulk of the population of Canada is located along the margins of the lakes and rivers, and it is well known that the greater part of the settlements are very subject to agues, fevers, bowel complaints, &c., diseases incident to low, marshy, ill-drained situations; but that portion of the province with which alone my brother is practically acquainted, is very differently circumstanced—being a high, dry, undulating region, as remarkable for its salubrity as many of the settlements are for their unhealthiness. The Wellington district, of which Guelph has recently been made the district town, is altogether an upland district, and forms a part of what may not inaptly be called the backbone of Western Canada; for whereas the river Speed, which passes by Guelph, runs southerly, and with its numerous tributary creeks, as they are called, joins the Grand River, which empties itself into the Lake Erie; a little beyond Guelph the brooks and rivers take an opposite course, and pass on to the northern lakes, Simcoe, &c.: and the adaptation of this elevated region for certain constitutions especially, which it is the object of this paper to bring to the notice of the profession, seems to depend on its pure, dry, tonic atmosphere, and its entire freedom from marsh miasma.

That this locality is, however, not recommended for those actually suffering from tubercular disease of the lungs *in an advanced stage*, I need scarcely say. For such, the soft, mild, equable atmosphere of our own southern coasts, the Isle of Wight, Madeira, &c., is doubtless to be preferred; but when we see how awfully prevalent consumptive and scrofulous diseases are become among us, and consequently how many there are who, from hereditary or other causes, have acquired a fearful predisposition to these fatal maladies, it becomes an important inquiry how the further development thereof may best be prevented or counteracted. It is, therefore, in my opinion, not a little satisfactory to know that in one of our own colonies, within easy reach, and among our fellow-subjects, enjoying the same excellent laws and institutions as ourselves, there is a country, possessing also many advantages for emigrants, *where these complaints are actually unknown*, except when imported,—a country the atmosphere of which is so invigorating, as to constitute, for such constitutions, a natural corrective. I am, Sir, yours, &c.

J. Orton.

Beeston, Notts, Aug. 18, 1843.

ERYSIPELAS ERRATICUM.

A patient has hurt his knee. Leeches are applied. Erysipelas spreads from the bites, up the thigh, down the leg. Abscess threatens. The *lancet* used early saves the skin. The erysipelas extends to the body, with more chills, and increase of fever. The face is affected, one day, the breast and loins the next. The symptoms, by treatment, become less violent, but *still* the inflammatory blush is shifting. In such cases the muriated tincture of iron is the best tonic.—*Sir Charles Bell.*

Common Salt in Typhoid Fever.—Some French physicians at New Orleans have used chloride of sodium with valuable effect in typhus after all inflammatory symptoms have been subdued. They give from half to three-quarters of an ounce of salt in the course of twenty-four hours in some emollient vehicle, aided by clysters containing two or three drachms or upwards of the same remedy.—*Gaz. des Hôp.*

ON THE INFLUENCE OF THE MOON ON THE ATMOSPHERE OF THE EARTH, AND ON THE PATHOLOGICAL INFLUENCE OF THE SEASONS.

By T. Laycock, M.D., Physician to the York Dispensary.

Before proceeding to the consideration of the influence of the moon on the earth's atmosphere, in continuation of my last paper (page 438), I would observe that I omitted to notice in their proper place some speculations of Mr. Morrison on lunar influence, in a paper published about ten years ago in the "London Medical Gazette" (vol. xi., p. 756), wherein he attempted to show a close agreement between the periods of gestation and incubation and the motion of the moon in her heavenly path. After specifying several illustrative instances, he says,—"I find no case in which the planet is not in some position, with regard to her original place at the commencement of gestation or incubation, which forms the angle or supplemental angle of a regular polygon which may be inscribed in a circle." Mr. Morrison thought he could show, also, that it is the periodic return of the moon to her own place, or to certain angular distances from her own place, at the woman's birth, which determines the menstrual period. I am not aware that Mr. Morrison has since carried out his views.

To return to the proper subject of this communication: I would observe that amongst the scientific individuals who might be mentioned as denying that the moon exerts a varying influence on the earth's atmosphere as she revolves round our earth, M. Arago is the most distinguished; amongst those who have asserted the reality of that influence the names of Toaldo and Howard are the most prominent. As it is of importance to proleptical science that the question be decided, I shall place the facts bearing on the subject before the reader, giving him, as in previous communications, an opportunity to judge for himself.

There are ten situations of the moon in her orbit when she will have most influence on the atmosphere. The new, and full, and the quadratures; the perigee, and apogee; her passage over the equinox, forming the moon's ascending and descending equinox; and the lunistices, so called by M. De la Lande, namely, the boreal when the moon is nearest our zenith, and the austral when she is most distant.

M. Toaldo compared a table of forty-eight years' observations of the weather, made in Lombardy, with other tables as to the state of the weather at these ten points. He tabulated the result as follows:—

Lunar Points.	Attended with Change in the Weather.	Attended with no Change.	Proportions Reduced to Lowest Terms.
New moons	322	82	6 to 1
Full	506	92	5 to 1
First quarter	424	189	2½ to 1
Last quarter	429	182	2½ to 1
Perigees	546	99	7 to 1
Apogees	517	130	4 to 1
Ascending equinoxes	465	142	3½ to 1
Descending equinoxes	446	152	2¾ to 1
Southern lunistices	446	154	3 to 1
Northern lunistices	448	162	2¾ to 1

Several of these points coincide with one another at intervals, in consequence of the inequality of the moon's revolutions. These coincidences are the most efficacious in causing changes in the atmosphere.

	Proportion of Change and no Change in the Weather Reduced to Lowest Terms.
New moon coinciding with the perigee	31 to 1
New moon coinciding with the apogee	7 to 1
Full moon coinciding with the perigee	10 to 1
New moon coinciding with the apogee	8 to 1*

Mr. Howard has paid very considerable attention to the periodic influence of the moon. His cycle of the seasons is one of the most important discoveries of modern meteorology. He has lately published a second edition of his "Seven Lectures on Meteorology," in a cheap form; and a good little book of the kind it is. In this work he says (page 96),—"The moon's position, operating by the common effects of the attraction of gravitation, influences alike the

* For these and other statements vide Magazine of Science, vol. iv., p. 6.

course of the variable *winds*, the daily variation of the *temperature*, and the *rain* of every year; but not in every year alike: there is a constant periodical variation of the variation itself.

"The following are a few of the results:—1. To begin with 1807, the first year examined in the work, the days on which a *northerly* wind appears under a full moon (the spaces taken being weeks, with the phase on the middle day) are double the number of those that occur under the new moon; and the days on which a *south-west* wind blew under the new moon, are to those under the full as thirty-three to seventeen. The *south-east*, again, are six under new, to four under full moon; while the *east* are eleven under full, to five under new moon.

"2. The rain of the year is found distributed accordingly, viz.:—

"For the weeks under last quarter, 6.92 in.
For those under new moon, 5.09 in.
For those under first quarter, 6.17 in.
For those under full moon, 0.84 in.

"The total for the solar year being 19.02 in., we find that *not a twentieth part of the rain of the year fell in that quarter of the whole space which occurred under the influence of the moon at full.*

"3. Contrary to the state of the *barometrical variation* in 1798, almost all the principal elevations of the column appear in this year under the full moon, along with the northerly winds.

"4. Lastly, the *mean temperature* of the weeks preceding new and full moon is lower in this year, by two degrees, than that of the weeks preceding the quarters."

Mr. Howard, however, shows how these results do not hold good for every year; and it is in this respect that his observations are so valuable, because showing how cautious we ought to be in making deductions from a limited number of observations, or in considering observations in a contracted manner. Mr. Howard goes on to say, "But we must not make the year 1807 a rule for others, any more than 1798. The year was remarkable (as has been shown) for *dryness*, and that dryness under the aspect of the full moon; in 1808 the phase in question loses this character quite; and in 1816 (a very wet year) the rain lies, two-thirds of it, on this side of the moon's orbit, and chiefly in the week before the full, the opposite phase being dry in proportion.

"So much for the *phases*; but if we take it by the *declination*, the dry and the wet year agree in the distribution of their rain; and this distribution, so far as it can be reduced to a common principle, appears to be as follows:—*While the moon is far south of the equator there falls but a moderate quantity of rain in these latitudes; while she is crossing the line towards us our rain increases; and the greatest quantity falls while she is in full north declination, or most nearly vertical to us; but during her return to the south the rain comes back to its lowest amount.*

"The mean temperature, again, appears to increase along with the rain, and to decrease as the quantity of that is reduced, agreeably to the known principle that heat is extricated by the condensation of vapour and passes into the air. But if we have regard to the *phase* instead of the declination, as here, then the cold side of the moon's orbit is also found to be the *wet* one; and *vice versâ*, comparative warmth brought comparative dryness."

We should at once anticipate that the barometer would vary at the lunar phases. "There is a constant tendency," says Mr. Howard, "in the *ordinary variation*, to show two elevations and two depressions in each lunar revolution, or in a period of twenty-eight days." From observations made at Somerset House it appears that the barometer is highest at new and full moon and lowest at the quadratures; from observations at the Paris Observatory the contrary is the case. According to the former the extent of fluctuation is nearly one-tenth of an inch; according to the latter only one-twentieth.*

I cannot learn that any meteorologist has ascertained the influence on atmospheric changes of *a coincidence of the moon's position with the diurnal variations of the barometer*, as, for example, when the new moon and perigee occur at four or ten o'clock. *A priori*, it might be expected that the changes would be decided. The construction of Herschel's well-known weather-table points indirectly to the coincidence as being influential.

The Influence of the Seasonal Changes.—Before discussing the question how far lunar atmospheric changes influence vital action, it will be advisable to consider the effect of seasonal atmospheric changes. One of the distinguishing characteristics of the works of Hippocrates, Sydenham, and Stoll, is the recognition of the influence of the seasons on diseases. "Some," Sydenham observes,† "happen indiscriminately, whilst many others, by a secret tendency of nature, follow the seasons of the year with as much certainty as some birds and plants. A knowledge of the seasons in which diseases ordinarily arise is of great use to a physician towards discovering the species of the disease as well as the methods of curing it; *and the consequence of slighting this piece of knowledge is ill-success in both.*" A very true and practical remark.

Modern statistical inquiries have shown the pathological influence of the seasons more perfectly. Some of these results I subjoin, and parallel with these the concurrent variations in the barometer, thermometer, and hygrometer:—

* Mr. Lubbock, Phil. Trans, 1831.
† Preface to work on Acute Diseases.

	Maximum.	Minimum.
Variations in the barometer.		
a. Near London, 1807 to 1816	December.	July.
b. In the Deccan	Decem. or Jan.	July.
Variations in the hygrometer (London)	January.	July.
in the thermometer	July or August.	January.
Amount of evaporation	July.	January.
Number of births (Belgium)	February.	July.
of deaths (Belgium)	January.	July.
Cases of insanity	June, July.	Decem., Jan.
of suicide	Summer.	Winter.
Deaths from Drunkenness London, 1842	Summer.	Winter.
Crimes against persons	June.	January.
Crimes against property	December.	July.*

The preceding results (with two exceptions) are from Mr. Howard's work, already named, and Quetelet's Essay on Man, the cheap and useful translation of the Messrs. Chambers. Lieut.-Col. Sykes made the observations in the Deccan; they are detailed in the Phil. Trans. for 1835.

I ought to state that summer in the preceding table comprises the months of June, July, and August, and that the winter months are December, January, and February. I have before remarked on the unfitness of the popular division of the seasons as a basis for statistical inquiries. As regards the extremes of cold and heat, the second or third week of January is midwinter; the last week in July, or first or second in August, is midsummer—and not the middle of February and August. I then proposed that the solstices and equinoxes should be the middle of the seasons; and although the time of the year when the days and nights are equal is not the period when the thermometer is at the mean heat of the year, I still think that that would be the best division, because the hygrometric and barometric variations, and the amount of light to which animals are exposed, are quite as important elements in calculating the influence of seasonal changes as the amount of thermometric variations, even if we overlook terrestrial magnetism altogether. When the registrar-general's report for 1840 came out I made some statistical notes on the tables, illustrating the influence of the seasons. I re-arranged the weekly return for the metropolis according to the *natural* division of the year into seasons, and compared the results with those given in the report based on the *popular* division of the year.

Deaths from Diseases of the Respiratory Organs.	Natural Division.	Popular Division.
1840 Summer	2981	2793
1840 Autumn	2999	4098
1841 Winter	4732	4534
1841 Spring	3943	3385
Deaths from Measles.		
1840 Summer	301	308
1840 Autumn	251	355
1841 Winter	346	158
1841 Spring	102	147
Deaths from Scarlatina.		
1840 Summer	436	516
1840 Autumn	534	416
1841 Winter	294	167
1841 Spring	125	124
Deaths from Small-pox.		
1840 Summer	213	253
1840 Autumn	381	708
1841 Winter	850	605
1841 Spring	354	252

The obvious discrepancies between these results will be more apparent if the number of deaths occurring in summer and autumn, and in winter and spring be added together and tabulated.

DISEASES.	Deaths in Summer and Autumn, 1840.		Deaths in Winter and Spring, 1841.	
	Natural Division.	Popular Division.	Natural Division.	Popular Division.
Respiratory organs	5982	6890	8075	7919
Measles	552	663	448	295
Scarlatina	970	932	419	291
Small-pox	594	961	1204	857

From this table we learn that the fatality of diseases of the respiratory organs is much more dependent upon temperature than is shown by the usual tables; but it is even greater than is shown by this table, since the mean temperature of autumn is higher than that of spring, because "the earth," to use the words of Mr. Howard, "having imbibed heat in the summer requires to lose it before the winter's cold can be established; and in like manner having been cooled in winter, it requires to be warmed again before summer can set in." The vernal month of March corresponds to October, with reference to the sun's declination, but the mean temperature of the latter is 50.79°; of the former only 42.01°; and even in April, corresponding to September, the mean is only 47.61°, while in the latter month it is 57.70°.

Correct estimates of the seasonal influence in each year become of much higher importance when it is remembered that it is *from data of this kind the difficult problem of the periodic return of epidemics must be solved.* The difference between the *medical* constitution of each year is as great as the difference in the *meteorological* constitution demonstrated by Mr. Howard. It becomes necessary, therefore, to obtain accurate statistical data of each year for a series of years (at least for eighteen), so constructed that the epidemical constitution may be compared with the meteorological. But I am anticipating a part of my subject. I trust, however, that Mr. Farr will excuse this reference to his own department, and will not think these suggestions unimportant. The whole subject is really a new branch of political economy, possessing surpassing interest for the philosophic statesman. A few thousands a-year would be well spent in the maintenance of meteorological observatories, and in securing accurate digests of the registrar's returns with special reference to meteorological phenomena.

To go back, however, to the original question,—Does the moon so act on the earth's atmosphere as to influence vital action? We have seen, or shall see, that the diurnal and seasonal atmospheric variations in the barometer, thermometer, electrometer, and hygrometer, are distinguished by physiological and pathological changes (I shall subsequently show the *physiological* influence of the seasons), and we have seen that the moon's phases and positions are coincident with atmospheric vicissitudes. The inference then necessarily follows that the moon *has* an influence on vital action. It is not so evident that the increase or diminution in the density of the atmosphere is the proximate cause of this influence, as maintained by Mead. Like the diurnal periodicity of disease, it is the result of various coincident changes.* If an increase or diminution in the density of the air were the sole cause, we should anticipate marked results in those persons who have ascended high mountains, or made aerial voyages. I have looked into travellers' histories for illustrative facts, but have found little available information. The most interesting statement is that of Lieutenant Wood, who made a journey to the source of the Oxus, a lake situate in a part of the great Himalayan or Hindoo Koosh Chain, at an altitude of 15,000 feet above the level of the sea. He and his party experienced so great muscular debility, evidently from the want of a sufficient supply of oxygen, that even conversation could not be kept up without exhaustion. His observations on the pulse are interesting. He says,—"I felt the pulses of my party whenever I registered the boiling point of water. The motion of the blood is, in fact, a sort of living barometer, by which a man acquainted with his own habit of body can, in great altitudes, roughly calculate his height above the sea. Upon Pamir (the source of the Oxus) the pulsations in one minute were as follows:—

	Throbs.	Country.	Habit of Body.
My own	110	Scotland	Spare.
Gholam Hassein, munshi	124	Jasulmere	Fat.
Omerallah, mule-driver	112	Afghan	Spare.
Gaffir, groom	114	Peshawuree	Spare.
Dowd, groom	124	Kabuli	Stout."†

* Since my last communication was printed my attention has been called to some remarks of Dr. Graves (in his "Clinical Medicine)" on the subject of diurnal periodicity, and its connection with atmospheric changes. I am happy to observe that his views do not differ materially from my own.

† Journey to the Source of the River Oxus, &c., 8vo., London, 1841, p. 362.

Water boiled at 184°. It is certainly a reasonable hypothesis that barometric (with hygrometric changes) may induce sanguineous effusion in those persons in whom the vascular system is already diseased. Apoplexy may thus be induced; indeed, the more frequent recurrence of that affection at the equinoxes has been thus explained. This result would, hypothetically, be more certain when the diurnal barometric period and the hebdomadal are coincident; as was undoubtedly the case in the instances of hæmorrhage detailed by Dr. Pitcairn, and referred to in my last communication. However, what theory soever we may adopt, it is quite certain that atmospheric vicissitudes influence vital action most extensively. For the country resident, spiders, a leech in a bottle, sheep or cattle in a field, or rooks, are efficient substitutes for the barometer; while, to the citizen, a rheumatic joint or a tender corn foretel a change in the weather as surely, often more surely, than the weather-glass. It is, undoubtedly, difficult to explain the nature and *modus operandi* of atmospheric influences, but the facts to be observed, and through which the proper knowledge may be attained, are proportionately numerous and accessible. Little more is necessary to its attainment than systematic, sedulous, and persevering observation.

In my next communication I shall consider the changes in vital action, occurring at annual or longer periods.

York, Aug. 26, 1843.

HECTIC FEVER.

As it is the fever which comprises local irritation (especially suppuration), surgeons may be permitted to *remove the cause*, as by amputation. The effect is wonderful. Sleeplessness, colliquative sweats, and purging, cease at once. In hectic fever watch and check the perspiration; take care not to throw the action on the bowels; nourish with light food; support with appropriate tonics.—*Sir Charles Bell.*

GLANDERS.

Whenever an animal is suspected of having this disease, the groom, or person attending it, should make a strong solution of alum, and keep it by him in the stable. As often as he has occasion to go near the horse, he should immerse his hands in the alum solution, and keep them there for some moments. Alum is an astringent, closing the pores of the skin of the hand, and which can consequently, for a certain time, prevent absorption of poisonous matter from taking place. Perhaps other astringents, as sulphate of copper, would answer as well, but alum is cheaper, more easily managed, and equally efficacious. If there be a cut on the hand it should be carefully covered with adhesive plaster.—*Veterinarian.*

PRACTICAL OBSERVATIONS

ON THE

CURATIVE EFFECTS OF BELLADONNA

IN CERTAIN AFFECTIONS OF

THE NERVOUS SYSTEM.

By R. S. Hutchinson, M.D., M.R.C.S., Senior Physician to the General Hospital near Nottingham, &c. &c.

Having for a considerable period been engaged in noting the effects of belladonna upon certain morbid affections of the nervous system, I am desirous of placing before my medical brethren, in a condensed and concise form, their results,—knowing how impossible it is that the limited extent of one practitioner's observations can substantiate any important practical fact in medicine, and hoping to induce others to afford this active remedy an impartial trial,—and by this believing that, should their experience lead to the same conclusions I have arrived at, that a valuable remedial auxiliary may be reclaimed from obscurity,—or, on the contrary, if not found as effectual as the belladonna in certain morbid affections is believed by me to be, that it may be left to share the fate of other vaunted remedies, and thus, in either case, an approach to truth attained.

The belladonna has been long employed on the continent, and more particularly in Germany, as a means of relieving pain of a neuralgic character when administered internally; in this country it has been rarely used, excepting as an endermic application, and but little confidence has been placed in its utility. This appears to be principally owing to the apprehensions entertained regarding the dangers attending its administration, which have deterred many from giving it a trial. The following observations are undertaken to show in what cases the belladonna may be given internally with safety and advantage, and under what circumstances dangerous results may be anticipated and expected. The extract of belladonna has been the preparation I have employed, and it is essential that in its further application medicinally, the purity and tested efficacy of the preparation, by the effects produced upon the iris, should be satisfactorily ascertained.

That the poisonous effects of an over-dose of belladonna are mainly exerted upon the cerebrum, there can exist but little doubt; the delirium, cerebral excitement, and subsequent effusion, in fatal cases, prove this to be the case; and the absence of convulsions in the only fatal case which I have witnessed leads me to infer that it is the true cerebral, and not either the cerebro-spinal or true spinal system of nerves upon which any injurious effects are exerted. Should the extended

experience of others substantiate this, it is obvious that the employment of this remedy cannot be safe when any cause of cerebral excitement or any symptom of determination to the brain is existing, and that the presence of any such symptoms precludes its safe administration; and it has appeared in a very striking manner to me that the beneficial effects of the belladonna are particularly and directly exerted upon the nerves of sensation of the true spinal system, or upon those immediately resembling it, such as the fifth pair of cerebral nerves. All modern authors (see the works of Thomson, Brande, Christison, &c.) consider the belladonna or its active principle as being sedative or narcotic upon the brain and nervous system; but under what sign does this narcotic effect present itself? The first symptoms attending its over-dose are those resembling intoxication,—insomnia, unreasonable laughter, elevation of ideas, dilated pupil, &c. These surely are the phenomena of excitement, and the only sedative appearance exists when the poison has extended its effects to the production of effusion, when coma and slight convulsions are the consequence of pressure caused by the fluid effused, and a fatal result is rapidly approaching. See the effects of an over-dose of opium: here the first symptoms are depressant upon the brain,—stupor, disposition to sleep, coma, stertorous breathing, followed by convulsions of an active character, and death. In the one case are remarked the usual signs of cerebral excitement, unattended by convulsive action from any irritating cause, exerting itself upon the true spinal system; in the latter, prominent symptoms of cerebral congestion and depression, accompanied and followed by irritation of the nerves of the true spinal system, indicated by spasmodic convulsions and cramps. From this, and from observing the effects of belladonna when administered remedially, I have been led to infer that its primary action is as an excitant to the cerebrum and its nerves, as a sedative to the spinal marrow and the nerves of the cerebro-spinal system; precisely opposed to that of opium, which assuredly in its effects exerts a sedative and narcotic influence over the cerebrum and true cerebral nerves; whereas the convulsions which accompany its administration, and the increased sensibility to the ordinary stimuli exciting reflex action caused by it, lead to the inference that opium increases the irritability of the spinal marrow and of the spinal nervous system generally. Should these prove correct principles it is obvious how important is their application practically, and how necessary it is to avoid the administration of opiates in convulsive affections induced by direct or reflected irritation of the nerves of the true spinal system, such as in hydrophobia, tetanus, chorea, &c., diseases in which these remedies have been too freely and frequently administered; as well as pointing to belladonna as a probable remedy in such cases, and its injurious effects upon those presenting symptoms of cerebral congestion or excitement. During the last winter I endeavoured to substantiate the truth of these opinions experimentally upon animals, attempting to ascertain if opium increased the reflex sensibility of the spinal marrow, and if belladonna depressed it; this was tried by giving either of these medicines to an animal, then cutting off the connection between the cerebrum and medulla spinalis by dividing the latter between the occiput and atlas, and ascertaining, by the stimulus of electricity, if the reflex sensibility was elevated or depressed by either poison, previously taking an unmedicated animal of the same species, size, and weight, as the point of comparison. No conclusion of a satisfactory nature could be arrived at by these experiments, as it was found that dogs and rabbits the (animals experimented upon) were but little influenced by either of these medicines. I have in my possession a rabbit into whose stomach a solution, containing two drachms of the extract of belladonna, known to be of good quality, was injected, and which produced no immediate or subsequent ill effects, the rabbit, at the expiration of seven months, being still alive and well. I relate this that others undertaking any similar researches may select different and more impressible subjects for experiment. It is well known that some medicines, such as strychnine, for example, exert a direct influence upon the spinal marrow and its nerves, acting palpably as stimulants; and it appears probable that belladonna acts conversely, and exerts a sedative influence upon the same division of the nervous system: its efficacy in removing painful and other affections of this important nervous division tend to substantiate this conclusion.

The mode of administering the extract of belladonna is either endermically by the skin, or in the form of pills taken upon the stomach; the constitutional and general effects of the medicine are speedily evinced upon the iris (when applied upon a surface previously blistered and the cuticle removed), in the form of ointment, and in the proportion of one scruple to a drachm of the extract, mixed with one ounce of lard. This mode of application has been found especially useful in cases of sciatica, where the internal administration has been attended with little or no benefit. The extract, when given by the mouth, has been prescribed either at once in the form of pill, or combined with the compound galbanum pill, which has been supposed to render the medicine more extensively diffused over the mucous membrane of the stomach, thus rendering it exposed to a more extended surface for absorption, and by this increasing its energy and activity. The dose has been raised from one quarter of a grain to one

grain, given three times a-day, until the specific effect upon the iris is observed; which is frequently accompanied by slight dizziness, headach, and imperfection of vision, which symptoms preclude its continuance; but in the generality of cases, until the effect upon the iris is palpable, no positive benefit upon the part suffering has been observed. I will now proceed to speak of the individual utility of this medicine in particular affections of the nervous system, and first of all in

NEURALGIA.

This painful affection of the nerves arises from such a variety of causes either acting directly upon some great nervous centre or upon some individual nerve, or reflected upon either of these by irritation of the intestinal canal on some other distant part, that it is not to be expected or supposed that any remedy can become an invariable specific or afford unvarying relief. Obscure as is too frequently the cause productive of this most painful malady, and generally impossible, as it is, to be arrived at by satisfactory evidence in individual cases, the experience of treatment proves that no one remedy constitutes a sure and certain relief for pains of a true neuralgic character; everything apparently being the same, similar remedies are not productive of the same results when administered to different individuals suffering under pains apparently affecting the same nerves and presenting similar characteristics. The preparations of iron, quinine, arsenic; drastic purges, such as croton oil, possess each the power of relieving individual cases; but will any one of these remedies assuage all cases of neuralgia? Certainly not; it is, then, with the hope of adding another to our present powerful assailants against this painful malady that I am induced to recommend to the consideration of our profession another, and, in my own opinion, a very powerful auxiliary. In the present state of our knowledge it appears to be very difficult, if not impossible, to draw a direct inference from symptoms, whether constitutional or general, which shall lead to a positive conclusion as to what remedy shall be most likely to afford relief in individual cases of neuralgia; it is true that when a neuralgic case is evidently depending, from the symptoms and appearance of the patient, upon some anæmic state of the system generally, the local symptoms and pain depending upon this cause, that the sesquioxide of iron will most probably be the selected and the successful remedy; that when neuralgic pains are palpably periodical, and apparently caused by malarious exhalations, quinine or arsenic will afford the desired relief; that when overloading of the intestinal canal has produced irritation and morbid excitement, this reflected upon a distant nerve and productive of neuralgia,—removing the cause by croton oil, will most probably carry the effect with it. But in the majority of cases these obvious causes of suffering do not exist, the pains are clearly present and their cause as plainly wanting; these numerous cases can only be treated empirically; the experience of remedies can alone prove that which has been judiciously selected from a result of that which has been successfully selected and applied. It is not in my power to clear away this difficulty, but as far as my observations have extended I believe that those cases which are accompanied by pains, most truly neuralgic in their character, constitute those which are most beneficially treated by the belladonna. This medicine, also, may readily be conjoined with others, and the combined effects of remedies are not uncommonly more successful than when given separately; a combination of sulphate of iron, or quinine, with the belladonna, has been found effectual, when probably, either medicine taken singly, might have failed. None of these cases so treated will be related, as it is obvious that the effect of any single remedy would not by such means be attained.

The following Cases have been carefully watched and noted by Mr. Sibson, our talented and observant house-surgeon,

and are given in his own words to prevent the possibility of any preconceived views influencing the accuracy and fidelity of the reports; it may nevertheless be asserted that the cases related presented pains which no one could doubt being of a true neuralgic character:—

Out-patient of Dr. J. Calthrop Williams.

M. A. Sands, 21, Mansfield-road, a cheviner, married, has three children. Hair brown; skin soft; susceptible of the influence of cold. She has had a bad supply of food during the last few years. Applied on the 13th of July, complaining of darting pains over the right lower jaw and right temple, over the occipital region, and, to a slight degree, over the left lower jaw. The pain was not constant; sometimes it came on gradually, increasing so as to be very violent; but in general it began suddenly. Generally the pain, after lasting four or five hours, disappeared gradually; sometimes it went suddenly. She took a quarter of a grain of extract of belladonna a-day.

July 28. Has experienced no relief. Take half a grain of the extract of belladonna three times a-day.

29. The pain disappeared last night; she felt as if she were losing her senses; she was giddy; could not stand; felt drowsy; when apparently about to sleep she started suddenly; headach. Continue the pills.

August 7. She took in all about twelve pills. On the 31st she had slight return

of pain in the right temple, it came and went gradually, and lasted about an hour. She has had no return of the pain since that time. Complains of nothing but general debility.

Out-patient of Dr. Davidson.

M. A. Jones, ætat. 29, resides at Carrington, a frame-work knitter. Has had tolerable health, but has been susceptible of the influence of cold. About six months since, after being exposed to cold and wet, she was attacked by cough, attended by copious expectoration. From this attack she gradually recovered.

About the 20th of May, 1843, she was attacked by aching and darting pain in the right temple and right side of the face; the pain came on gradually.

27. She suffers from very severe neuralgic pain of the right temple and cheek. Take half a grain of extract of belladonna three times a-day. Apply the extract over the seat of pain.

29. After she had taken three or four doses of the extract she "trembled inwardly." The pain in the right temple and cheek is much less severe; the pupils are dilated. She took no belladonna on the 29th.

30. Renewed the belladonna; the sight of the right eye became dim and the pupil greatly dilated, followed by dizziness; the neuralgic pain in the right cheek and temple disappeared. She continued the belladonna.

June 21. She became sick, and the dimness of the right eye increased. She then discontinued the belladonna.

26. Has had no return of facial pain; complains of general debility; has leucorrhœa.

August 5. She is still free from pain.

Aug. 9. Mary Brown, ætat. 47, a nurse in the General Hospital. Health generally good; skin susceptible of the influence of cold. During March, 1843, she suffered from darting shooting pain in the left cheek and temple. The pain generally first attacked the left cheek, then the left orbit, ear, and temple; it usually came on suddenly, sometimes gradually; lasted for some hours, and generally disappeared gradually, attacking first one part, then another. After the facial shooting pain had disappeared some hours, a heavy violent pain came on in the occipital region.

Early in May, after she had suffered six weeks from the neuralgic pains just described (which pains increased in severity from day to day), she took half a grain of extract of belladonna three times a-day. The belladonna produced no appreciable effect during the first two days.

On the second night the pain in the occipital region was much alleviated.

On the third morning she felt sick; her eyes dim; her throat stiff; she had a dry bad taste in her mouth. She noticed this dry taste in the mouth and throat during the evening of the second day.

On the third day the facial neuralgic pain was much less severe and more continued; less darting in character than on previous occasions.

On the third night she rested unusually well; the occipital pain was less troublesome.

On the fourth day she felt dizzy, sick, and torpid; the pain was still less intense. She now took half a grain of extract twice in the day.

The dizziness gradually diminished; the neuralgic pain became less and less severe every day; and at the end of a fortnight, the pain having disappeared, she ceased to take the extract. The dimness of sight and sense of dryness now disappeared.

After two or three days a slight darting pain came on in the left cheek. She took half a grain of the extract of belladonna daily, for three days, at the end of which time the pain quite disappeared.

She has had a very slight return of pain in the face when she held down her head occasionally, since she left off the belladonna; but she has not thought it worth while to apply for medicine. She attributes the relief from pain altogether to the belladonna.

Out-patient of Dr. J. C. Williams.

John Moore, ætat. 28, Carrington, lacemaker.—A rather pallid man, with light hair and skin, susceptible of the influence of cold. Has been subject to pain in the region of the stomach during the last six or seven years.

May 25, 1843. Has had darting stabbing neuralgic pain in the course of the left supra-orbital nerve during the last three months. Severe pain came on suddenly this morning, after he rose, in the course and distribution of the left supra-orbital nerve, accompanied by dimness of vision; he has no facial pain. Take half a grain of extract of belladonna three times a-day.

26. Has taken the belladonna. There is now no pain in the left supra-orbital nerve; has slight neuralgic pain in the course of the right supra-orbital nerve; sees better; attributes relief to the pills. Continue the extract of belladonna. Apply the extract of belladonna externally over the course of the right supra-orbital nerve.

27. The pain in the supra-orbital nerve disappeared in about half an hour after applying the extract; dizziness and increased dimness of vision came on after a few hours had elapsed; the right pupil is considerably, the left slightly, dilated. Continue the remedies.

29. Took but one pill yesterday; continued the external application. The pain

is more severe in the course of the left supra-orbital nerve. Repeat the extract of belladonna, half a grain, three times a-day. Continue the external application.

21. Has a hot "prickling" taste in his throat; slight irritating cough; dimness of sight; slight dilatation of pupils; smarting and aching of eyes; has *no* darting irregular pain over the left orbit (*the characteristic neuralgic pain having disappeared*); but complains of a heavy regular pain over the whole forehead (the *neuralgic pain* being replaced by the dull frontal pain due to the influence of *belladonna*). Omit the belladonna.

June 4. Slight frontal pain; has no local neuralgic pain; complains of pain in the lumbar region.

13. Has been free from frontal pain until yesterday morning; as soon as he rose from bed he felt a *heavy aching pain* over the forehead, starting from, and more severe over, the left supra-orbital region; the pain is now worst on the right side; no dizziness; is hoarse. The pain has none of the characters of neuralgia, but to test the influence of belladonna, give half a grain of the extract three times a-day.

14. The headach became worse after taking the belladonna. This is natural, as the pain had the same characters with that produced by the belladonna. Feels parched. Omit the belladonna.

August 8. The frontal pain gradually disappeared; he has been quite free from neuralgic pain until the 6th of August, when he was suddenly attacked by shooting pain over the course of the left supra-orbital nerve. He now suffers from this pain. Take half a grain of extract of belladonna three times a-day.

12. Has taken the pills since the 8th. He felt relief from the first pill; after the second pill the pain disappeared; has had little or no pain since then; throat feels parched.

Out-patient of Dr. Hutchinson.

May 1, 1843. Ann Durrand, ætat. 41. A spare woman, of dark complexion, black hair and eyes; has always been a slave to her employment, that of a shoebinder; her food has been insufficient, and of bad quality; she has never had good health; she has borne seven children; her health has been worse after each childbirth; she has always menstruated regularly; has suffered much from neuralgic pain in the head during the last six months. At first she suffered from a stabbing pain over the left supra-orbital notch; this pain came on suddenly, generally about eleven, a.m., and lasted until about eleven at night, a few hours after being in bed. In about a week the pain extended over the left frontal region, as high as the coronal suture. The neuralgic pain brought on dimness of sight.

May 1. Suffers from intense neuralgia of the left supra-orbital nerve. To take half a grain of extract of belladonna three times a-day.

22. She states that the first pill caused pain in the bowels and purging. She persevered with the pills and took three daily during a week. The neuralgic pain and dimness of sight were gradually relieved; the purging continued. At the end of the week the neuralgic pain and dimness of sight disappeared.

During the second week she took two pills daily; she had then neither neuralgia, pain in the bowels, nor purging.

During the past week she has taken no belladonna.

June 22. She is now free from neuralgic pain; she is less dizzy, and sees better than she did before taking the belladonna.

August 4. She has had no return of neuralgic pain; her general health is much better; she has been in the country and has had better food.

Out-patient of Mr. White.

April 1, 1843. Ann Bell, ætat. 25, lacemender, resides at Basford, a large, low, damp village, situated on the Leen, a small lime-charged river running on a gravel-bed. Has had general good health, but has had thyrocele for six or seven years, and has suffered from pain in her face, generally on the right, sometimes on the left side, lasting for three or four days, and alternating with epigastric pain of some days' duration. Has light-brown hair; rather fair injectable skin, susceptible of the influence of cold. The pain in the face has usually been preceded by a sense of itching, sometimes singing, in the right ear, followed shortly by sense of itching in the right gums of both upper and lower jaw; in about an hour an aching pain in the course of the portio-dura has supervened, generally ushered in by a sudden stinging pain, often so sharp and severe as to make her jump. This aching pain usually lasted from five to ten minutes, and often recurred, frequently after irregular intervals of perfect relief, lasting from five minutes to an hour. The pain has been less severe when she lay down with her head forward. Catamenia generally regular. Take half a grain of extract of belladonna three times a-day.

History noted on the 23rd of June:—After taking one pill the pain abated and she felt sleepy; after taking six or seven pills her eyes felt dim and misty, objects at a distance being more distinct than those near at hand; the mouth and throat felt dry. The pain became gradually less intense and less frequent in recurrence, and in about three or four weeks the pain ceased. After the 20th of April she took half a grain of extract of belladonna twice a-day. After taking the pills a fortnight the sight

became clear, and in a few days the sense of dryness in the throat and difficulty in swallowing had disappeared. Has occasionally had epigastric pain. She has continued the half grain of belladonna twice a-day up to this date. About a fortnight since had a slight recurrence of pain in the right portio dura; this lasted two or three days. On the 19th of June she became affected by severe epigastric pain. On the 20th she had an attack of pyrosis. The epigastric pain still continues, but she has no neuralgic pain in the face.

August 10. Has been free from neuralgic pain until yesterday morning, when the left upper gums began to itch; after a time she was affected by a heavy aching pain in the left cheek; this lasted until bedtime. She now complains of pain in the left cheek. The epigastric pain has been less severe, and generally absent. Take half a grain of extract of belladonna three times a-day.

12. Suffered from facial pain yesterday; has no neuralgic pain in the cheek to-day; mouth and throat feel dry; pupils are dilated; face flushed; feels "light-headed." The pain went from her face last night, and was replaced by a heavy universal frontal pain. She complains of a darting pain over the left side of the head.

Remarks by Mr. Sibson.

The six cases detailed above were those of out-patients of the General Hospital, near Nottingham. During the treatment they followed their ordinary occupations as far as they were able; they were put under no restrictions as to diet or regimen, and no other medicinal treatment was resorted to save the administration of extract of belladonna. The object was to test the efficacy of belladonna, and to fulfil this object belladonna only was administered. The cases speak for themselves; they are well-marked instances of neuralgia. The characteristic effects of belladonna followed its administration, and in each case the neuralgic pain disappeared after these effects had been produced. I feel satisfied that the relief from neuralgic pain was due to the influence of the belladonna administered. In some cases, as in that of Moore, the influence of belladonna, after removing the local neuralgic pain, has produced a general dull frontal pain; this pain is always ushered in by a sense of dryness in the mouth and throat, dimness of vision, and slight dizziness, the almost invariable effects of belladonna. A little scrutiny will at once distinguish the pain produced by belladonna from neuralgic pain. The unpleasant effects excited by the first few doses of belladonna frequently disappear, although the medicine be persevered in. In no case have permanent bad results followed the administration of belladonna.

FRANCIS SIBSON.

I have just been favoured with the following note and interesting case from Joseph Thompson, Esq., M.R.C.S., consulting-surgeon to the Nottingham Dispensary, &c.:

"Pelham-street, Nottingham,
August 17, 1843.

"My dear Sir,—I have forwarded to you the accompanying case, which is, I believe, illustrative of the good effects of belladonna in neuralgic affections of the face. I must request you will consider that its imperfection depends in some degree upon its being drawn out from memory, dates and prescriptions having been my only guides. However, such as it is, I have much pleasure in transmitting it to you, and as the case is one of a recent date, I will vouch for its accuracy as far it goes. The subject of it is well known to you, and you are aware that he is a gentleman of very close business habits, which confine him within doors. I mention this as it is not hinted at in the account of his case, hoping it may be of some use to you in your inquiries into the action of belladonna. I am, dear Sir, yours truly,

"JOSEPH THOMPSON.

"To Dr. Hutchinson."

"B. M., ætat. 37, consulted me on 11th January, 1843, on account of pain which he experienced in the right side of his face and in the molar teeth. The pain was at this time comparatively trifling, being confined to the lower part of the temple to a point opposite the articulation of the lower jaw with the temporal bone, and extending thence to the angle of the jaw and the molares; leading at first to the supposition that it might arise from a decayed tooth. This, however, was clearly not the case; the bowels were, too, inactive, and the tongue furred, with other evidences of a deranged state of the digestive organs, which had probably existed a considerable time. From this it was supposed that the pain, which was evidently seated in the inferior maxillary nerve, was derived, and consequently it was judged proper to recommend an abstemious and otherwise appropriate plan of diet; and an emetic, to be followed by a calomel pill and cathartic draught, and afterwards a mixture composed of ammonio-tartrate of iron, tincture of henbane, sal volatile, and infusion of calumba. From this period to the 17th he took several purgatives, and continued his plan of diet and medicine without any relief, indeed, his pain had rather increased; he was therefore recommended to use, in addition to the remedies already in use, an application composed of soap liniment and extract of belladonna. On the 21st he had received no benefit, and as, notwithstanding the free purgation, his tongue continued furred, &c., it occurred to me that the tonic might have been prematurely recommended,

and that it would be better to omit it and attend only to the digestive and secreting organs, &c., and when some evident improvement had taken place in this respect to return to it. With this view he was desired to continue on the same diet, and to take occasional aperients, preceded by small doses of calomel, and an effervescing saline with hydrocyanic acid. This he did until the 31st, when the pain was so distressing that I was obliged to prescribe him an opiate, containing twenty-five minims of liquor opii sedativus, to be taken at bedtime; at this time the pain had become exceedingly severe, shooting with great violence along all the branches of the inferior maxillary nerve, and affecting all the lower teeth as far as the interval between the two middle incisors. On the 1st of February he was requested to repeat the anodyne draught at night, and to take an ounce and a half of mixture composed of twenty grains of disulphate of quinine, one drachm of magnesia, three drachms of tincture of orange-peel, and eight ounces of water. This he continued, with occasional aperients, until the 8th, when, having experienced no relief, it was changed for eight grains of compound extract of colocynth and two of calomel every night, and five minims of liquor arsenicalis three times a-day, which was soon increased to ten. He persevered with this medicine until the 17th, and no amendment having resulted, he got half a drachm (which was speedily increased to half an ounce) of carbonate of iron, with three grains of disulphate of quinine, to be taken every four hours. This, together with the aperient pills, an occasional aperient and anodyne draught, produced so much relief that I had every reason to believe he would soon be quite well, the pain being nearly gone by about the 15th of March. Without my advice he left his house and went to business, and on the 17th the pain returned with more violence than ever. Ten grains of compound extract of colocynth were ordered to be taken at bedtime, and the liquor arsenicalis was again had recourse to in combination with spirits of lavender and tincture of cinchona; but he only took this until the 19th, as *he* wished to return to the iron, which had been of such signal service to him. On this occasion, although he took it in the same large doses as before, up to the 26th, it produced not the least benefit; on this day I prescribed for him a quarter of a grain of extract of belladonna and half a grain of extract of henbane, three times a-day, and to resume the use of the arsenic (which had been relinquished in compliance with *his* wishes), as I thought it had scarcely had a fair trial, and my intention was to continue it for a fortnight, gradually increasing the dose. For this evening I also ordered him one grain of the muriate of morphia in a draught. No amelioration having arisen out of this treatment, the late Dr. Davidson was requested to meet me, which he did on the 29th, and he recommended a continuance of the arsenic, in doses of twelve minims (every six hours), combined with forty minims of liquor potassæ, and an ounce and a half of almond emulsion; he also directed a solution of extract of belladonna in spirits of wine, to be applied (by means of lint) over the face, and a repetition of the pills with extract of belladonna and the anodyne draught. We met again on the 2nd of April, when we found our patient complaining of sickness and thirst, and as we had some reason to think this might be occasioned by the draught, we prescribed an effervescing saline with hydrocyanic acid to be taken after each, and the pills and liniment to be continued. It is proper to mention that at this time the pain was so violent that he could rest neither night nor day; his tongue was covered with a whitish slimy fur, and the lips particularly; the lower one was swollen and cracked, and the side of the chin actually excoriated from the friction of his handkerchief which he was obliged to press upon the parts every time he had a dart of pain. His diet had consisted chiefly of good broths, sago, gruel, arrow-root, and sago pudding, &c., and at this time it would have been utterly impossible for him to masticate solid food; talking even would bring or aggravate the pain when present. Our next meeting was on the 7th, when the above state of things persisting, we recommended first an emetic, and then a drop of creosote, every six hours, and all other medicines to be discontinued. On the 8th the pain was unalleviated, and as we were averse to the administration of opium by the mouth we gave one drachm in mucilage as an enema. Dr. Davidson again met me on the 9th, and we agreed to give ten grains of calomel and twenty of Dover's powder directly, and one-fourth part of a mixture containing sulphate of magnesia, fluid magnesia, and tincture of colchicum, every four hours, until the bowels acted copiously, and then one grain of extract of belladonna and two of extract of henbane, every four or six hours, according as the pain should be more or less violent. On the 10th, the belladonna was increased to two grains every four hours, the henbane being omitted; on this day he was also ordered to take with each pill one drachm of bicarbonate of potass and five grains of iodide of potassium in the form of mixture, and in the morning an opening draught, consisting of spirits of turpentine and castor oil, of each half an ounce. On the 12th the pills, mixture, and draught were repeated, and some zinc ointment ordered for the lip. He now began to experience considerable relief from pain. On the 16th the pain was gone, except an occasional twinge. Bowels torpid, and as he had taken calomel for some time with his pills, the bromide of potassium

was prescribed in doses of three grains, to be taken every night, with five grains of compound extract of colocynth and an aperient dose in the morning, consisting of compound powder of jalap and tincture of senna and water. The above plan was continued up to the 20th, the pills having been given at longer intervals, and a chloride of soda gargle prescribed for the mouth on the 18th. On the 20th he had ordered for him a light tonic of compound infusion of gentian, sal volatile, and tincture of orange peel, and was directed to take a pill only when threatened with pain. He went to Scarborough about the 30th of March, and when he left home he was free from all pain; but yet was not satisfied to travel without his remedies lest he should have a relapse. I have lately heard that on the night previous to his leaving home he took a pill, thinking it would enable him to travel better, and more secure from pain, but not having taken one for some nights, and being free from pain when it was taken, the next morning he was so much affected with tremors and otherwise ill that he was obliged to take some brandy and water before the symptoms disappeared.

"J. T."

The next communication will consist of observations and cases showing the curative influence of belladonna in cases of sciatica and cruralgia.

Nottingham, Aug. 12, 1843.

HÆMORRHAGE FROM THE PROSTATE GLAND.

TREAT it as an internal hæmorrhage, or as you would a woman threatened with miscarriage. Avoid using the catheter if possible. When you do use it you will find it stopped up with coagulum, and you will have to inject a very little tepid water before you will be able to relieve the bladder either of blood or urine. As the urine flows into the bladder the coagulum dissolves, and the urine is for a long time charged with blood. At length it is clear, and the patient remains well until a shock in riding, or a plethora of the gland, causes the veins to burst again.—*Sir Charles Bell.*

SHOULD a wound in a distant part of the body co-exist in the same patient with a chancre of the genitals, the wound will proceed to cicatrisation, as if no syphilitic complication were present, *provided* the secretion of the chancre do not come into contact with it. But a wound existing close to the chancre, as within one or two lines of it, will become chancrous, although no apparent contact with the inoculable matter should have previously taken place. This may, perhaps, be due to the virulent secretion soaking, as it were, through the neighbouring cellular tissue; but whatever be the explanation the fact is one daily observed, and which cannot be contradicted.—*Ricord.*

PERFORATING ULCERS OF THE STOMACH IN THE MALE AND IN THE FEMALE.

To the Editor of THE LANCET.

SIR,—In December, 1837, a case of perforating ulcer of the stomach having occurred in my practice, I was led to an investigation of such instances of this affection as I could find on record. The result of that investigation was a conviction on my mind that these cases, so remarkably similar in the previous state of health, in the age, and in the sex of the several patients, so uniform, also, in the situation and character of the ulcer, must be traceable to one common cause; that cause I believed to exist in sympathetic irritation of the stomach from uterine disorder.

All the cases of this disease recorded as having occurred in the *male* subject are so totally distinct in the previous state of health of the patients, so remarkably differing in the situation and character of the ulceration, as compared with the *female* cases, as to distinguish them entirely from these latter, and to afford additional proof that the perforating ulcer in the female is a disease, *sui generis*, peculiar to the sex, and arising from some uniform cause. The proportion of cases, also, is as seven in the female to one in the male sex.

In May, 1838, I published these views in a pamphlet, entitled "Practical Observations on Hysteria," and since that time I have collected much additional matter confirmative thereof; in fact, I had but a few days ago finished a tabular arrangement o cases, with a view to publication, when THE LANCET of August 5th came into my hands, containing a paper on the subject by Mr. Crisp, who it appears has arrived at the same conclusions as those to which I have referred in my pamphlet of 1838. Mr. Crisp has made out a tabular view of numerous cases of this disease, which, when added to, and compared with, that which I had also arranged, places the whole subject, as I think, in a clear and simple light. In being the first to arrive at a just conclusion with respect to a class of diseases involved (as a perusal of all the discussions on the subject for many years past will show) in great obscurity, there may be but little merit, but *cuique suum* is a motto in which I am sure Mr. Crisp will cordially agree, and I doubt not that the same feeling will induce the editor of THE LANCET to give a space to these remarks in an early number of his valuable periodical, and thus greatly to oblige his obedient servant,

JOHN PRICHARD.

Leamington, Aug. 31 1843.

P. S.—Since the above letter was written and forwarded to the editor of THE LANCET,

I have received from Mr. Crisp the following note, which, in justice to him, I beg to attach in this place :—

"Walworth, Aug. 30, 1843.

"Dear Sir,—Many thanks for your pamphlet, which I have read with great pleasure, as your views appear to be in many respects similar to my own. I did not know of its existence, or of course I should have alluded to it in my paper. I regret, also, that I did not receive your letter before the inclosed pamphlet was struck off. I stated my views respecting these cases at the London Medical Society *six* years since (1837). The discussion is published, I think, in Ryan's Journal and THE LANCET; I then had a table of only sixteen cases. My observations were only noticed by Dr. Bennett, who thought the subject worthy of attention. I find you have stated that in males the opening is generally at the pyloric end of the stomach; I thought this had been first noticed by myself, but I only came to this conclusion (after examining many cases) *a few months since*. Again thanking you for your attention, I am, yours, &c.,

"E. CRISP.

"To J. Prichard, Esq."

LEECHES.

THESE may become the cause of serious accidents, if not sufficiently watched. They should, for example, never be applied to the gums, orifices of the uterus, anus, &c., except through a glass, as instances sometimes occur of their having been swallowed, and thereby causing extensive mischief. In a case of this kind a French physician recommends that a large dose of salt and water should be swallowed by the patient, under which treatment he has known the leech to be speedily expelled *per anum*. The same physician has recounted the case of a soldier who had been serving in the French army in Africa, and who, on returning to France, became subject to intolerable headach with frequent epistaxis. This continued for some time, and the nose was always full of large clots of blood. At length, one day on blowing his nose with more than ordinary force, a clot of considerable length was half expelled through one of the nostrils, and afterwards wholly removed by the fingers. It proved to be a leech of large size, gorged with blood. From the time of its removal the previous symptoms disappeared. The man recollected that he had one day in Africa drunk of a rivulet in which some leeches had been seen; and doubtless at this time a small leech had entered his mouth, and made its habitation in the nasal fossa, as nearly from the same period the patient dated the commencement of his headach and other symptoms.—*Gaz. des Hôp.*, Jan. 17.

THE LANCET.

London, Saturday, September 9, 1843.

A COPY of the *Carlisle Patriot* of September 2nd has been forwarded to us, containing the report of an inquest on the body of JAMES CLARKE, said to have died from the effects of a disease of the hip-joint. It appears that the deceased had been admitted as an out-patient of the Carlisle Infirmary in the October of last year, that subsequently he became an inmate of the same establishment, that he was afterwards attended by some private practitioners of Carlisle, and that he died in the last week of August. The account of the proceedings of the inquest occupy eight columns of the newspaper, and we are compelled to state that evidences of grosser irregularities and inconsistencies in the court have seldom been presented to our view than are to be found in the report that is before us. Persons having no right or authority whatever at the inquest were permitted to interrogate and cross-examine the witnesses, to the full bent of most prejudiced inclinations; many of the questions were of a purely speculative or hypothetical character, and were at once both absurdly illegal and irrelevant as regarded the immediate object of the inquiry. It is with pain and regret that we make this statement, but we should feel still more annoyance at withholding it after our attention has been directed to the inquiry, because we are strongly of opinion that such proceedings as we have now condemned are especially calculated to bring the coroner's office into odium and disrepute with the public.

We offer no remarks as to the *necessity* which existed for holding the inquest, because we are not in possession of the information on which the Coroner acted, previously to his determination to issue his warrant for the inquiry.

Having thus frankly stated our views with regard to the very reprehensible cha-

racter of the proceedings at the inquest, we feel bound, with equal candour, to declare our opinion of the treatment of the disease with which the unfortunate patient had been afflicted. It was admitted by the medical officers of the infirmary that the malady was *morbus coxarius*, or disease of the hip-joint. In making this admission those officers stand before the profession and the public self-condemned, because there is no hope of a cure in such a case without enforcing the strictest *quietude* of the joint, a practice which was *not* enforced in the present case, and because the system of counter-irritation which had been adopted was childishly impotent, and altogether unsuited to the vigorous action which the threatening nature and importance of the disease demanded. At the same time it must be admitted that the age of the patient was calculated to raise a doubt in the minds of the medical officers as to the soundness of their diagnosis.

Carlisle is, evidently, still full of medical troubles. The storm yet rages there with its pristine fury, and Mr. W. Carrick, the Coroner, does not appear to be enough of a magician to abate in any degree the violence of the tempest.

Again we assume the duty of a friend to the ill-lodged, half-starved poor, and demand of other friends to visit them once more in their dilapidated pent-up habitations in the large towns, places of self-generating pestilences, that carry off the prime portion of our fellow-countrymen, and burden the state with the support of all those who are left to live a little longer than the adults, and were dependant upon them during life.*

The facts which we have already adduced show, with incontrovertible clearness, that some towns are healthier than others, and that some few that are exceedingly unhealthy are made so by the large proportion which they contain of undrained, unwatered lanes, courts, and wynds, abounding with holes that it were a compliment to call lodging-houses, reeking with filth, damp with the moisture of stercoraceous matter, and so wretchedly ventilated as to make the healthy oxygenation of the blood impossible. We have shown, also, that not merely in different towns, but in different regions of the same city (selecting the metropolis), varying rates of mortality prevail, owing mainly to the causes just mentioned; and documents now before us prove that in nearly every industrial town of England and Scotland there are districts in which the mortality is as moderate as 1 in 42 or 43, whereas within gunshot of them there are other districts in which the yearly deaths rise as high as 1 in 27, and even 1 in 23,—in fact, that every town has its *airy*, *well-built*, and *healthy* region, and also its *close*, *dilapidated*, *fever-breeding* region.

What we have alleged respecting our own country applies with the same force to the crazy tenements in the heart of Paris, and south of the Seine,—to the narrow, crooked, poverty-stricken alleys and *culs-de-sac* that are tenanted by the weavers of Lyons,—to the equally objectionable districts of Minimes, De-la-Chapelle, &c., where live the working classes of Brussels,* all of which, in point of vitality, contrast, more unfavourably even than is the case in English towns, with the well-built and ornamental quartiers—the Chaussée d'Antin of Paris, and the neighbourhood of the Park at Brussels. We are not living, indeed, in those times when epidemics *decimated*, nay, sometimes carried off *the fourth* of, a city's inhabitants, and that, too, very frequently. We have read of a plague that afflicted the Athenians, when, during war, the population of nearly all Attica was pent up in streets that art had not yet learned

* Mr. Chadwick reports that in 1840 there were in the union parishes only 43,000 widows and 112,000 orphans, two-thirds of whom became chargeable by the remature deaths of husbands and fathers.

* See report of the commission appointed by the Belgian Board of Health to ascertain the condition of the dwellings of the working classes in Brussels.—*App. to Sun. Report*, p. 429.

to drain. The people died like sheep; the ties of social life were severed by panic, and the mortality was immense. LIVY describes several pestilences that ravaged ancient Rome, and, sensibly enough, ascribes them to the absence, or the dilapidated state, of the *cloacæ*, and the filthy habits and unhealthy homes of the *capitis-censi*, or lower orders of the citizens. In the latter part of the middle ages,—when Italy was the scene of constant strife between the Guelph and Ghibelline factions, and when the hapless Popes were banished to Avignon,—Rome, neglected by the wealthy, and occupied only by a poor vagabond population, was visited on three or four occasions, and at no long intervals, by pestilential fevers, that killed half the people, and on one occasion reduced the inhabitants to a third of their former number,—the cause ascribed for which was the ruin of the great sewers of the city, the total obstruction of the subordinate drains, and the accumulation of filth, rapidly running to putrefaction, in a warm climate. Well; on the return of the Popes the drains were repaired, and the population increased rapidly; and, at length, when LEO X., with princely magnificence, made those sewers which still serve for the sufficient drainage of that city, and opened, in previously close quarters, fine, well-built thoroughfares, not only did the population vastly increase, where before it had been decreasing, but the average length of life was raised more than one-third. ERASMUS, describing the habitations of the poor in England during the reign of HENRY VIII., says, "The floors are commonly of clay, "strewed with rushes, which are occasion- "ally renewed; but underneath lies, unmo- "lested, an ancient collection of beer, grease, "fragments of fish, spittle, the excrement of "dogs and cattle, and everything that is "nasty." And in London, as well as other towns of old date, we still see narrow lanes, with houses rising face to face, so close that opposite neighbours nearly shake hands. Before 1666 the whole British metropolis was composed of such streets, and sweating-sickness, plague, &c., were consequently the frequent and deadly visitors of London, killing the people in such numbers that the rites of decent sepulture became impossible, and the suburbs abounded with dead-pits. We live not in such times, indeed, when a reckless indifference prevailed as to the preservation of life amongst the poor; but there still remains, with all our modern improvements, a great amount of almost guilty *insouciance* respecting the working, and, economically speaking, the most useful classes of the community.

Almost down to the present time, indeed, the improvements of cities—unquestionably great in Edinburgh and Manchester as well as London—have been made with reference chiefly, to the localities of the titled, the wealthy, the *few*, in whose favour palace-like streets have risen with a rapidity that shows the vastness of their resources, while the masses have been allowed to live and die in holes that no gentleman would keep his hounds in, from absolute want of better habitations, and in spite of their growing sense of the dangers incurred in such nurseries of disease.

Before entering on the discussion of the manner in which these places are to be improved, we must make some remarks on a large majority of the *workshops* in which the in-door labourers of England pass so much of their lives; for there reform is as much needed as at home. The spinning and power-loom factories we can recollect, so long back as 1812, to have been characterised, generally speaking, by order, cleanliness, and tolerably efficient ventilation; but it would be too bold to deny that in some of the smaller and older establishments glaring defects existed in all these respects, which the factory-inspectors have noticed, and caused to be corrected. The thread and flax-mills, in particular, were often very ill-regulated, and so imperfectly ventilated as to produce serious injury to the work-people. Taking the factory-proprietors, however, as a body of men who preside over vast masses of persons, we have less reason to condemn them than the great employers in Birmingham, Sheffield, and the metropolis, who exhibit an utter indifference to the state of

the shops in which their people labour. It is sure to be said against this remark, that the workmen are themselves indisposed to any change, and would resent every attempt of the masters to improve the shops. But even if this were true—and until recently we have known much ignorance to prevail among the operative classes respecting the chief requisites of a healthy dwelling—the well-informed master is not absolved from compelling a compliance to measures of health within his establishment. Parents must insist on obedience in the nursery; and keepers of lunatics must cleanse the cells even of the most filthily inclined patients. To live amid dirt and stench creates a love of wallowing in mire—an absolute *preference* for unclean floors and tainted atmospheres, regardless of the fatal inroads which they make on life; but this does not exonerate cleanly persons from inducing a healthier taste by a new kind of domiciliation.

How necessary are public remonstrances on this subject may be seen by some extracts respecting the present condition of some of our leading workshops (always excepting factories) from the Reports of the Childrens'-Employment Commissioners; first, respecting the workshops

IN BIRMINGHAM:—

"In general the buildings are very old, and many of them are in a dilapidated, ruinous, and even dangerous condition. Nothing is more common than to find many of the windows broken, on which point great and just complaint is made by those employed. The shops are often dark and narrow; many of them, especially those used for stamping, are from four to seven feet below the level of the ground, and, being cold and damp, are justly complained of by the workmen. From defective construction, all these old shops are liable to become suffocatingly hot in summer (still more so at night, when the gas is lighted), and very cold in winter. Efficient ventilation is a thing unknown in these places; and the great majority of the shops are never white-washed. Many of the work-places, too, are inconveniently crowded; shops full of people being built round narrow and confined yards; men, women, and children are huddled together. As the privies, such as they are, are placed in the yard and not in the manufactory itself, there are none of those nauseous smells that often poison the air in large factories. Some of the more recently built manufactories, however, contain fine, spacious, and lofty workrooms, and a few of them may be called splendid constructions. But, in general, *the important object of ventilation is but imperfectly accomplished*, owing to the subject being but little understood."

FROM WOLVERHAMPTON

we have a far more painful report; but it is right to state that it applies, for the most part, to the workshops of petty masters, who, in point of station and knowledge, are very little elevated above their journeymen:—

"The workshops are usually situated at the backs of the houses, there being very few in the front of the street,—so that the places where the children and the great body of the operatives work are completely out of sight, in narrow courts, unpaved yards, and blind alleys. None of these houses and hovels in courts and alleys have any underground drainage, and very few of them have any privies. There is often a common dunghill at one end or in one corner, where everything is cast; but more generally there is nothing but the gutter and the passage into the street. When there is a pump in these places, their condition is not so very bad; but when there is no pump, it is exceedingly dirty,—the slush in front of the doors being often most disgusting, and in front of some of the smaller houses stagnant pools containing all manner of filth, the effluvium from which, even in the depth of winter, is most offensive. The interior of these dwellings commonly presents a most squalid appearance; they contain little furniture, and are, for the most part, exceedingly dirty in every respect. It is in little shops and hovels in localities such as these, that the small locksmiths, key-makers, screw-makers, tobacco-box makers, &c., carry on their work. In the establishments for the manufacture of nails, tips, and washers, and for the various articles of tin-plate, there are in general no special means of ventilation, and in those that require no fire it is wretchedly cold and comfortless in winter; *few of them are weather-tight or even safe as respects the flooring and ladders communicating between the stories.*"

WITH RESPECT TO SHEFFIELD

we shall have occasion to make some special strictures in a subsequent number, but may quote now Mr. SYMONS's report, which, we have reason to believe, is much too favourable in its descriptions:—

"The great defect in the places of work at Sheffield is the *want of ventilation*, more especially in the work-rooms in which grinding is carried on—the most dangerous of all the cutlery-employments. These workshops require a thorough draught to carry off the dust; and much of the increased unhealthiness of grinding is owing to the crowded state of the rooms at the town-wheels. Cleanliness is, of course, out of

the question, and nearly equally so in all the Sheffield trades."

From the POTTERIES, and the weaving houses of COVENTRY, LEEK, and MACCLESFIELD (not factories), and from the tobacco-manufactories of GLASGOW, LIVERPOOL, and LONDON, similar reports are furnished of filth and want of ventilation. The following is extracted from Mr. SCRIVEN'S report on the carpet-weaving of

KIDDERMINSTER:—

"The workshops and factories are generally well built, with lofty and well-lighted rooms; which, however, are commonly *very deficient in ventilation*, and are in a disgusting state of filth. In weaving worsted, a quantity of 'flights and ends' is allowed to accumulate under the looms; and these, the perquisites of the draw-boys, are collected once a month. I visited three-fourths of the whole number, and can avow that I did not see one otherwise than in a filthy and abominable state of uncleanliness; not a wall or passage was even whitewashed, nor was soap or water heard of, either in the rooms, passages, or staircases. The appearance of the people and children was in keeping with the whole, and bespoke an indifference to their persons, strangely contrasted with their appearance on Sundays. The most unhealthy and obnoxious effluvia arise from the open cess-pools and urine-tubs to be met with in the yard of every work-shop, because they are requisite in the process of scarlet-dying. These are placed at their very door-ways, through which women and girls are constantly passing to and fro. Their privies are equally exposed, and have no vaults, but are left open behind, to receive the refuse of surrounding houses. In some few instances there are separate places for the sexes; the great majority, however, are common to both, and much exposed."

So much for the workshops in the provinces. *Sat, superque.* Now, therefore, a few words respecting those of

THE METROPOLIS:—

We have taken much trouble to obtain accurate information, especially relating to the tailors', the printers', the bookbinders', the envelop-makers', the general-outfitters' and the milliners' establishments, where great numbers of people are congregated in the same shop; and, with some three or four individual exceptions, we discover in all cases the same indifference to the duty of providing airy, well-ventilated rooms, probably from ignorance of the fatal effects of carbonated air, or human miasms, on the constitution.*

To begin with the tailors of the west-end, whose masters employ each from 60 to 250 men on their premises, where, in nearly all instances, the workmen sit close together, almost knee to knee, the heat of the men and the irons causing an increase to 25° of heat above that of the atmosphere outside, the utter want of ventilation rendering the air most nauseous and suffocating, and causing the uninitiated to faint away in the shops, an evil which is rather increased than diminished in winter, as the feeble inmates are highly susceptible of cold, and object to the introduction, by the windows, of fresh atmospheric air. The effect on their energies is most depressing, and leads to attempts at artificial excitement with beer and spirits, which are drunk to an almost incredible extent in all the tailors' workshops, causing amongst the men a weekly expenditure that dwindles down very high wages, until, in fact, the journeymen-tailors are little better off, as respects provisions for their families at home, than artisans earning but half the sums. They are short-lived, and especially subject to fistula and consumption, the natural results of deficient ventilation, which the master should furnish and regulate without any reference to the opinions of the men, who suspect not the importance of good oxygenated air, and freedom from the miasms which steam off from living bodies congregated in large numbers.

Take another calling, and one that is the more objectionable, because it occupies many hundreds of children in London. Within less than half a mile of Paternoster-row more than two dozens of pretty large book-binding houses are to be found, in which periodicals, pamphlets, and books, are stitched on the premises, in confined rooms, containing each from 40 to 150 young people, sitting as close as possible, and inhaling little better air than that which is exhaled from each other's lungs. In these rooms no attempt is made at ventilation, and

* Air, after having been once respired, contains about 9 per cent. of carbonic acid, of which about 27½ cubic inches are exhaled every minute, and 23,000 in the twenty-four hours. Thus, in each minute a healthy man destroys about a gallon of oxygenated vital air, and substitutes for it about the same volume of the highly poisonous carbonic acid, mingled with about 1-360th part of offensive and unwholesome animal matter.

the stench of them is quite staggering to strangers.

The compositors in printing-offices suffer evils that are peculiar to themselves; but in the large offices the compositors' rooms are very far from presenting that degree of ventilation which is requisite for health.

The milliners are confined for many more hours daily than is usual with other artisans; and in the closest work-rooms (lighted with gas at night), exercising a most injurious effect on the ill-treated and ill-paid persons, the producers of the most *attractive* works of art—the costly dresses of beautiful women.

Enough has at present been said—consistently with our space—on the ventilation of our work-rooms, hitherto so little understood and generally neglected. For the manufacturers, indeed, seem to have no idea of any *ventilation* beyond that which comes from open doors and windows, or of any *warmth* besides that derived from a dangerous, open fire, or from a close, over-heated stove, sending out a small current of disagreeable, unwholesome, burnt air, adulterated by the gases of combustion. It is obvious that no system of heating workshops, or any large buildings whatever, can be considered as perfect that does not effect a thorough circulation in uniform volumes of moderately-heated and perfectly oxygenated atmospheric air. Unless measures are taken towards the attainment of this end the health and lives of the work-people must be greatly injured, and therefore we are strongly impressed ourselves, and desire, also, to impress the same notion on our readers, that in all places where numbers are assembled for many hours together *artificial ventilation* must be made imperative by law.

We find in this place,—where the subject has recently been so prominently discussed,—room for the annexed letter from a correspondent who has authenticated his statements by a private communication of his name:—

To the Editor of THE LANCET.

Glasgow, Sept. 4, 1843.

Sir,—In the very able leading article of THE LANCET for August 26th, an erroneous calculation occurs, at least it appears to be such in my humble judgment. Probably, it is an error of the press. (See p. 778, line 33, commencing "Now, reckoning, &c.," and ending at line 39, at the word "expenses."*)

I presume that the writer of that clever article is anxious to prove that the excess of mortality amongst the lower orders is, in a great measure, attributable to their drunken and dissipated habits, brought on, or induced, *by the want of every domestic comfort in their wretched dwellings*; and if, *particularly*, more space was allotted for their habitations, and more ventilation afforded them, they would have less inclination to frequent the spirit stores, and that, consequently, by the saving thus induced they would be enabled to provide for themselves and families more of the real necessaries of life, more of the comforts and attractions which their homes ought to present, and thus, by diminishing drunkenness, procuring themselves greater health and happiness, and in this way lessening their mortality. I am well satisfied, from much conversation with the dissipated poor, of not only this large city, but of London and elsewhere, that if they had healthier dwellings to live in, less harrowing sights of disease and wretchedness constantly around them, they would cease, in a great measure, to have cause for their absence from home, and their lamentable excesses in drink.

As an instance of the prevalence of whiskey-shops in this city, I may mention that in one street, of scarcely two hundred yards length, there are from forty to fifty of them; and, indeed, in all the streets of the poor districts every third or fourth dwelling is a whiskey-shop. Can there be stronger presumptive evidence of the drunken habits of the people? How can you annihilate the patronage of these places, excepting by promoting the healthiness and comfort of the poor man's dwelling? By no other means can you do it, for the labourer, when his daily work is done, will spend his leisure hours away from the harrowing sights which are to be found in and surrounding his habitation, and thus is he driven to the whiskey-shop. You speak of the "close, stinking neighbourhoods" in which the industrious poor of the large towns of England *reside*. I only wish you could see,—in order that you might, with your eloquent pen depict,—how much worse are the localities inhabited by the poor of this city. A "wynd" of Glasgow surpasses every other spot on the known earth in denseness of population, in the existence of filth, and in the production of disease.

At the present moment, and for weeks past, a severe fever has been raging in Glasgow. It differs in many respects from pure "typhus." The victim of it has a starved, *jaundiced* look; his pulse is feeble, but not so quick as in typhus, seldom exceeding 80 pulsations in a minute; indeed, it does not, I believe, average more beats than the pulse of health. There is pain in all the limbs, with great general debility and vomiting. *Obstinate epistaxis*, and *herpetic eruptions* about the mouth and nose are frequently met with in the complaint. It does not run

a definite course, like "typhus," but is subject to remissions, lasting two or three days. I do not consider it to be contagious. I believe it to be brought on by a poverty of the blood, occasioned by drinking ardent spirits without taking sufficient nourishment, the parties living in densely-crowded, filthy localities. Whiskey may be purchased in this city at the rate of 4d or 5d per half-pint. The poor, in consequence, drink it as the English poor do porter. The result is what I have stated.

I may mention that some of the district surgeons of this city have been attending about two hundred cases of this fever per day, and that the rate of their remuneration is about *a halfpenny per visit*. Need the English poor-law surgeons complain after this? I remain, Sir, your obedient servant,

M.D.

Our correspondent, Mr. Hedley, remarks at the commencement of his first case, printed at page 845 of this week's Lancet, that the events therein recorded show the utility of holding inquests on the bodies of women who have died in child-bed. If the employment of unqualified persons to attend women during parturition is to be prevented by creating a dread of any publicity that may follow the proceedings of a Coroner's Court in such cases, then the remark of Mr. Hedley may be justified; but, palpable as was the criminality of, at least, one party on the occasion (we withhold all comment on the evidence which could not ascribe the rupture of the uterus to its undoubted cause), the verdict of the jury could create no terror among incompetent accoucheurs. It is to be hoped that the moral effect of the inquiry was more pungent than the legal.

A correspondent at Bath has sent to us the following statement and questions:—

"In this city, last month, Lady William S. died, as announced in the London papers, under circumstances which created much consternation in Bath. Some time since, Lady S. consulted a surgeon of this place for some ailment which he pronounced to be stricture of the rectum, and advised the introduction of bougies, to which the lady assented, and on the last time but one that he passed the instrument its introduction was followed by effects from which it was some time before Lady S. recovered. However, on the 15th of last month she consulted the same gentleman again, who again regarded the case as one of stricture of the rectum, and urged the necessity of once more passing the bougie, when, after some time, the patient consented, and died in a few hours after its employment, at the house of the surgeon, so excruciating was her suffering as not to allow her to be removed previous to her dissolution. The circumstance becoming known in the town, a post-mortem examination was decided on, and conducted by Mr. Norman, a gentleman of forty years' standing and first-rate skill in his profession, when there was found no stricture of the rectum, nor any thickening of the gut, but a perforation of the gut, as if made by a bougie. The case being considered to demand an inquest, Mr. English, Coroner for the city, received information of the death and the circumstances attending it. His answer, however, was that he knew all the particulars, but as the body had been removed from Bath, he could not interfere. Consequently, no inquest was held. Was this in accordance with law, or a dereliction of duty on the part of the Coroner? Had such a case occurred to a medical officer of a union, and his patient been a pauper, what should have been done? Mr. Copeland remarks that the 'practitioner should be cautious not to mistake the projection of the sacrum for a stricture of the gut, an error which (he says) has often been made.'"

To the questions here asked we reply that the inquest should have been held by the Coroner of the county, borough, or liberty into which the body was removed, whether the deceased person was a lady or a pauper. Mr. English, we presume, did not know of the death until after the body had left his district. He could not follow the corpse, although he might give information of the death to the neighbouring Coroner.

DISCHARGE OF MILK AT THE AXILLÆ.

To the Editor of The Lancet.

Sir,—The following particulars may no be without interest to your readers:—

Mrs. H., aged 44, the mother of eight children, having informed me that she had "lumps under her arms which gave milk," I obtained leave to inspect them, and found, in the centre of each axilla, a tumour of about the size of an egg, that on the right side being somewhat larger than that on the left. Each tumour had the feel of a mammary gland over the surface, and was raised from one and a half to two lines. Above it were irregularly-distributed small prominences, from each of which, when compressed, there issued milk. There did not exist any areola. She first noticed them after the birth of her second child, and attributed their origin to "having caught cold." When she became pregnant with each succeeding child she found that the tumours increased in size in proportion to the development of the true mammæ, and maintained

the same dimensions during lactation, after which they again subsided to their original bulk, viz., that of walnuts. When the draught comes into the true breasts it does so also into these axillary tumours, and then the latter become distended, and milk issues from each little papilla, which is furnished with a single orifice for its escape. I should state that I saw the patient three weeks after delivery of her eighth child. My friend Mr. T. T. Price kindly accompanied me at the visit.

For cases of multimammary subjects your readers are referred to a lecture delivered by Dr. Chowne, at Charing Cross Hospital, and reported in THE LANCET, vol. ii., 1841—42, page 465. I remain, Sir, your obedient servant,

J. L. W. DIXON, M.R.C.S.L.
London-road, Brighton,
Sept. 5, 1843.

CASES OF

DEATH IN CHILDBED,

AND

DEATHS FROM POISONING.

By G. D. HEDLEY, Esq., M.R.C.S., Bedford.

THE following case affords an illustration of the importance of holding inquests in cases of deaths in childbed:—

On the 19th of July an inquest was held at Houghton Regis, on the body of Hannah Lines, who was said to have died in consequence of neglect or ill-treatment on the part of her medical attendant during her confinement; it was also reported that death had been caused by want of the common necessaries of life. I was requested by the coroner to examine the body, which was disinterred a week after burial. The evidence adduced was to the following effect:—The deceased, who was thirty-four years of age, and had for some time been in delicate health, and subject to occasional attacks of vomiting, was taken in labour at about three o'clock on the morning of the 2nd of July; she was then sick, and appeared weak. The assistant of a medical man in the neighbourhood was requested to attend, and came to see her about six; he examined her first about an hour after his arrival, and did not then make any observation on the progress of the labour. In another hour (at about eight) he made a second examination, and then stated to a midwife who was present, that it was a case of arm-presentation. A third examination was made before one o'clock, and a fourth about four, when he remarked that the child remained in the same state,—nothing was said about turning. The pains do not appear to have been very strong or frequent until two or three o'clock. Stimulants were given to the deceased by his direction. The friends becoming dissatisfied, sent for the master of the young man in attendance. He arrived at about six or seven o'clock, and having made an examination, said that the case was a critical one, and that the child must be sacrificed to save the mother. He then proceeded to deliver her by means of instruments; he was about two hours so occupied. Having delivered her of a female child, which was not greatly mutilated, he felt her pulse, and said he did not think she would recover. Stimulants were ordered for her, but the stomach rejected everything except a little water. The vomiting continued at intervals until her death, which took place on the 6th of July. She was buried on the 9th, and disinterred on the 19th. With the assistance of Mr. Farr, of Dunstable, and in the presence of the parties by whom the woman was attended, I proceeded to examine the body. It was plump, like that of a person in good condition, and well formed. Putrefaction had made considerable progress, particularly in the face and extremities. On opening the abdomen a considerable quantity of blood, fluid and coagulated, was seen lying among the intestines. The lower part of the omentum adhered slightly to the peritoneum lining the parietes of the abdomen. The abdominal viscera appeared healthy, excepting that their most depending parts were red, no doubt stained by the blood among which they had been lying, and the coagula of which in many places adhered closely to them. The stomach contained some castor oil, and the intestines a considerable quantity of chyme and fæces. The lungs were healthy; the heart pale, flabby, and perfectly empty. The uterus had contracted so as to fill the pelvis; on slightly raising it a laceration was seen to extend from the fundus towards the vagina. The rami of the pubes were sawn through, and the whole of the parts contained in the pelvis carefully dissected out. On looking into the vagina we could perceive a laceration at the back part, commencing about two inches from the external opening, and a similar one in front, both extending into the uterus, where they became continuous with that which had been before observed. The laceration commenced about two inches from the highest part of the fundus, and extended into the vagina; near the os uteri was a second, smaller rent, proceeding transversely from the first, about two and a half inches to the right. The placenta had been attached to the upper and back part of the uterus, where the laceration commenced. There was no injury of any of the parts immediately surrounding the uterus. The edges of the laceration were covered with coagula. The substance of the uterus was found on cutting into it to be pale and firm.

The coroner inquired if there were any symptoms which indicated whether the rup-

ture took place previous to the attempt to extract the child, or whether it occurred during the use of the instruments? But it did not appear from the evidence of the women who were present during the whole of the labour, that there were any such symptoms. The woman had been sick, and was in a weak state before labour came on. She was sick at intervals during the whole labour. There was no hæmorrhage, and she did not at any time during the twelve hours appear to get suddenly worse. The circumstance of none of the surrounding parts being bruised or torn, or in any way injured, is in favour of the supposition that it occurred before the use of the instruments. No attempt was made to turn the child, either by the assistant during the twelve hours that he was with her, or by his master, previous to extracting by means of instruments. It is probable that if such attempt had been made early in the morning, turning would easily have been accomplished, and the lives of both mother and child preserved.

The verdict of the jury was, that death ensued in consequence of the rupture of the uterus, but that there was no evidence to show how that rupture was caused.

On the 14th of April, 1843, the body of Simeon Mead was disinterred by order of the coroner, as suspicion existed that he had died from the effects of poison. The evidence in this case was very scanty. It appeared that he had been living on bad terms with his wife (afterwards Sarah Dazley), who, after one of their quarrels, had been heard to say that she "would poison him, but what she would get rid of him." He was taken ill on the 4th of June, 1840, and died on the 10th. The symptoms described by the witnesses were pain in the bowels and chest, soreness of the mouth and throat, inability to swallow, offensive odour of the breath, discharge of saliva from the mouth, swelling of the face and redness of the eyes, great heat and thirst. There did not appear to have been any sickness, nor did any of the witnesses know that his bowels were affected. He was seen by a medical man, who did not recollect anything of the case, beyond the circumstance of the man's having a sore throat. Tadlow churchyard, in which the body was interred, is an elevated spot; the grave was about four feet deep, and the soil on which the coffin rested a heavy blue clay; the earth above the coffin was, from frequent removal, mixed with the top soil, which is a rich black mould. The lid had sunk in a little on one side, otherwise the coffin was in good preservation. On opening it there was found to be little but the skeleton remaining. The shirt which had covered the body was quite rotten; the only trace of integuments or muscles was in front of the abdomen; these were hard and dry, and appeared to have been partly converted into adipocere. At the bottom of the coffin, under the bones of the extremities, probably resulting from the decomposition of the soft parts, lay a quantity of soft black matter. The vertebræ and sacrum were also covered with soft matter, part of which was of a grey colour, and part had the appearance of soft brain. The bones of the head and extremities were bare but moist; one of the front teeth was missing, the others were tolerably firmly fixed in the alveolæ. The soft matter found on the bones of the trunk was collected in a jar and removed for analysis. The history of the symptoms, imperfect as it necessarily was (a period of nearly three years having elapsed without suspicion being excited, or anything occurring to recal to the minds of witnesses circumstances they had forgotten), resembled strongly that of poisoning by corrosive sublimate; it was, therefore, to the detection of this substance (or, at least, of some form of mercury) that the analysis was chiefly directed, without, however, the slightest success. The tests for arsenic were also employed with the like result.

At this one could not be surprised, for, supposing death to have been caused by corrosive sublimate, the dose must have been small, and the very advanced stage of decomposition would render it almost impossible to detect it. The symptoms described may have arisen solely from a severe form of cynanche, and suspicion would probably never have been excited but for the circumstances attending the death of Mrs. Mead's second husband, Dazley.

In the case of Jonas, the son of Simeon Mead, the evidence relating to the symptoms preceding death was still more defective. The mother of the child resided by herself, and was not on friendly terms with any of her neighbours, who, consequently, had but little opportunity of observation. She had, however, been heard to express a wish that the child were dead, and did not pay much attention to it, particularly with regard to cleanliness.

The child was born in February, 1840, and died November 23rd of the same year. It was not a very healthy child, and had hooping-cough for some time before its death. On the 22nd of November, however, it appeared tolerably well, and ate heartily of some sop made for it by a neighbour. On the 23rd the mother took the child to a neighbour's house, saying it was very ill, and requested permission to leave it there while she went to the druggist's to see if she could get something for it. She was absent about two hours, during which period, said the witness, "the child appeared wonderfully ill;" it was not sick, dozed nearly the whole time, and moaned a great deal. On her return from the druggist's the mother gave it some sop, which she had previously brought with her, and which was to have been given to the child if it woke up; it had

not done so, however. She remained in the cottage for about half an hour after giving the sop, during which time there was no change in the appearance of the child, and then took it home. She returned to her neighbour's an hour and a half afterwards, and on being asked how the child was, said he was dead and laid out, and that she had given him one of three powders she had got from the druggist half an hour before he died. The child was buried by the side of the father, but the grave was not quite so deep.

The body was exhumed on the 14th April, 1843. The coffin, which was made of deal, was in good preservation. On opening it the body was seen in a very advanced stage of decomposition, the bones of the head and extremities being partly bare, partly covered with a little greenish-black matter. The viscera of the chest had entirely disappeared. In the situation of the abdomen was lying a dry, hard mass, which appeared to consist of the liver and intestines. The whole of the trunk was removed for more minute examination. The liver was found to form a large portion of the mass removed; it was dry, of a light-red colour, and perfect in shape; on raising it the anterior part of the stomach was found adhering to its under surface, from which it could not be separated; the posterior half of the stomach remained attached to the parts on which it was lying. It was soft and of a greenish-brown colour, except at the opening of the gullet, where it was in a more perfect state of preservation and covered with a soft substance of a bright-yellow colour. Similar patches of yellow were observed in two or three parts of the intestines. The intestines were dry, flattened like tape, and of a red colour. On holding them up to the light blood-vessels could be distinctly seen ramifying in their coats. In two places there was intussusception. On softening these parts in water the inverted portion was easily drawn out. The bowels appeared quite empty. There were no traces of any of the other abdominal viscera. Having examined these parts carefully, I cut the intestines into small pieces and boiled them in distilled water for half an hour, filtered and added acetic acid, and then filtered again. To a portion of the clear fluid thus obtained, and neutralised with potass, was added a little of the solution of ammoniated nitrate of silver; this caused a precipitate, which was, however, of too light a colour to be considered at all indicative of the presence of arsenic. To another portion was added a little of the solution of ammoniated sulphate of copper; this gave a precipitate of a faint-green colour. Through a third portion was transmitted, for half an hour, a stream of sulphuretted hydrogen gas; this gave the fluid a yellow colour, which became more decided on boiling; and on setting it aside for twelve hours a yellow precipitate subsided. The supernatant fluid being poured off, the precipitate was washed, dried, and heated in a glass tube, with soda flux. A well-marked metallic ring was formed, which was then converted into arsenious acid, the crystals of which were visible in the light of the sun to the naked eye. The liver, and the part of the stomach that adhered to it, were in like manner boiled and filtered, and the clear solution tested by means of Marsh's apparatus, which gave abundant metallic deposits on the glass. The materials used were in the first place tested, and found to contain no trace of arsenic.

There are some points in this case, as in that of Wm. Dazley, of considerable interest; the preservation of those parts of the body with which the arsenic had come in contact, though not so perfect as in the latter case, was very remarkable, particularly around the œsophageal orifice of the stomach, where the arsenic had undergone conversion into the sulphuret. The intussusception of the bowel is not mentioned by writers on toxicology as one of the appearances observed in fatal cases of arsenical poisoning; but I have reason to believe that it is not of uncommon occurrence. It was observed by Mr. Harris in a case which occurred at Bedford, about a year ago; its chief value in the present instance is as indicating the period at which the poison must have been administered. The child had no sickness or diarrhœa after it was taken to the cottage of one of the witnesses, which was at least two hours before death; it was then exceedingly ill, moaning, and appearing to doze. The period at which the arsenic was administered was important; for as the accused lived alone with the child, and no one had been to her cottage on the morning of its death, the strongest suspicion would be attached to her as the person who administered it. The largest portion of arsenic was found in the liver.

Bedford, Aug. 22, 1843.

NEWS OF THE WEEK.

By a general medical order issued by the poor-law commissioners of England, dated March 12, 1842, the guardians of the poor-law unions throughout England and Wales were informed that no person, not possessing purely *English* qualifications in medicine and surgery, was legally qualified for holding medical offices under them. In consequence of remonstrances against that order, made by several of the Scotch and Irish medical bodies, to the Secretary of State for the Home Department, the commissioners were instructed by him (the Secretary of State) to procure from her Majesty's attorney-general

an opinion with regard to the law on the subject, and the attorney-general has given it as his opinion, which is coincided in by by Mr. Martin, another counsel who was consulted, "That so far as the question of surgery is concerned, those persons who have a surgical diploma or degree from a royal college or university in Scotland or Ireland, are (in point of law) as competent to be appointed, and to act, as medical officers under the statute referred to, as the persons who have the diploma of the Royal College of Surgeons in London." In consequence of this opinion the poor-law commissioners have resolved "to admit persons having a surgical diploma from a royal college or university in Scotland or Ireland, to the same rights under the Poor-law Amendment Act as members of the Royal College of Surgeons of London;" and "to make such modifications in their general medical order of the 12th April (March?), 1842, as may be necessary for giving effect to the opinion of the attorney-general." The letter of the poor-law commissioners was dated 21st of August, 1843, the opinion of the attorney-general having been given on the previous 8th of August, 1843, and a copy of it having been since circulated with that letter.

The following extract from a letter, lately received by a friend in Gloucestershire, from "a very intelligent and observant non-medical correspondent," now residing in Italy, tends to show what must be the state of medicine in some parts of that country at the present moment:—

"In nearly all the principal cities (Florence, Venice, &c.) there may be found *one* apothecary who can read the prescriptions written by members of your College of Surgeons, and who can make them up with English drugs, that is to say, with drugs received from England. The other apothecaries vend any description of stuff for drugs, generally being drugs of the most inferior sort, mixed with all the sand and dirt which may have been originally found on the plant. In Florence there is a resident English physician, Dr. Harding, who has been established in that city during ten years, and I fancy has a very excellent practice, as there are a great number (some say 200) of English families residing there, and a continual stream of passers through. *Florence* boasts of having the finest wax anatomical museum in the world. It comprises many rooms, filled with dissected figures, representing the progress of various diseases, in all their different stages. The figures and portions of the human frame are executed in a very beautiful manner. There is also in this museum the well-known representations of the plague, as it appeared at Florence, Milan, and Venice, the work of the Abbate Lumbo, in the days of the Medici. These representations are the most harrowing of any spectacle I ever beheld, but they are so exquisitely made that one finds it difficult to leave them. The inhabitants of Tuscany and Lombardy still continue the barbarous custom of wrapping up the children in swaddling clothes. As soon as a child is born, its arms and legs are bound tightly round with linen, its arms being confined to its sides, so that one only sees the head of the urchin, dangling from this mass of cloth. It is to this practice that I attribute the number of hump-backed people to be found in Tuscany. In Milan, homœopathy is all in vogue. Every malady is there treated on the homœopathic system."

The Queen Dowager has given fifty pounds towards the building-fund of the Queen's College, for the residence of medical and surgical students, at Birmingham.

About the time that Hahnemann departed this life in Paris, the homœopathic institution at Leipsig fell to the ground for want of funds.—*Gaz. des Hôp.*

Paragraph for the Governors of Bethlem Hospital.—Recreations and amusements engage some, are accessible to more, would be granted to all the patients in the Montrose Lunatic Asylum. They comprehend, *inter alia*, music and dancing, visiting the museum, public concerts in the town. Lately, much to my satisfaction, and with happy effect, the catalogue has been enlarged. Draught-boards and a neat *billiard-table* call forth a good deal of dexterity and skill, which had long been dormant and unknown; while a really beautiful bowling-green waits only a propitious season to yield a larger amount of salutary pleasure. Since these were introduced there has been *a very marked improvement in many of the patients*, who take a keen interest in them. A library, journals, newspapers, &c., are always at command.—*Report of the Montrose Asylum*, 1843.

Idem.—Oct. 19th, 1842. Ordered a *billiard-table* to be fitted up in one of the wards. The committee have much pleasure in stating that the introduction of bowls, billiards, and draughts, have had *a most favourable effect on the patients*. They have also to mention that dancing and musical parties have been held occasionally, where the patients have, at all times, conducted themselves in the most quiet and orderly manner, and they look forward to these parties being given with the greatest delight. The committee, therefore, strongly recommend their being continued.—*Report of the House-Committee.* Geo. Smart, Chairman, Montrose, 13th June 1843.